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Dravo Corporation's worldwide activities encompass a broad range of process, technological, engineering, construction, facility operation and other services to the mining, minerals and metals, electric power, petroleum, chemical, pulp and paper, food processing and transportation industries and to the public sector. The company is also involved in natural resources development, barge transportation, manufacturing and equipment sale and rental.

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Dravo Corporation Annual Report 1978



Cover: Two years ago, our cover (above) showed the undeveloped site of our joint venture coal mine in Wyoming. In September, 1980, the facility was dedicated and began shipping coal in unit trains to a power plant in the Midwest under a 20-year contract. This year an aerial view on the cover shows one of the first shipments of coal ready to leave the minesite.

Dravo

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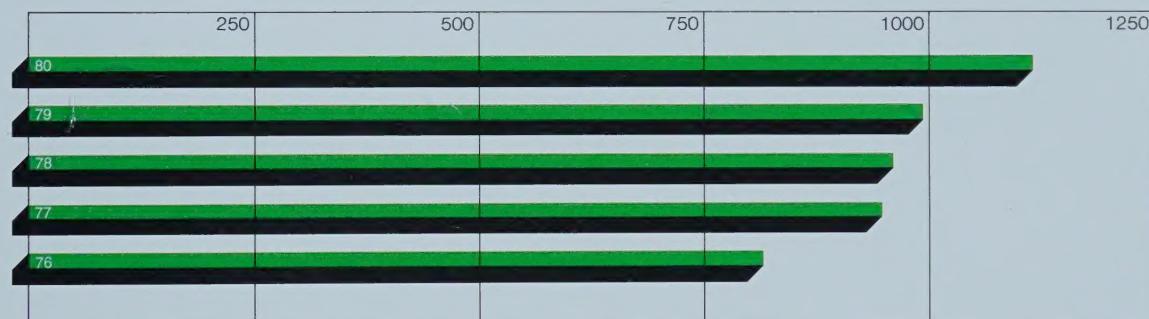
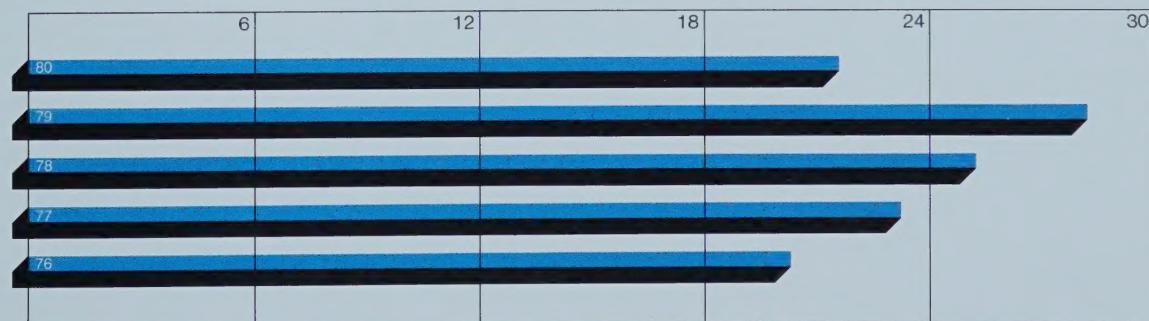
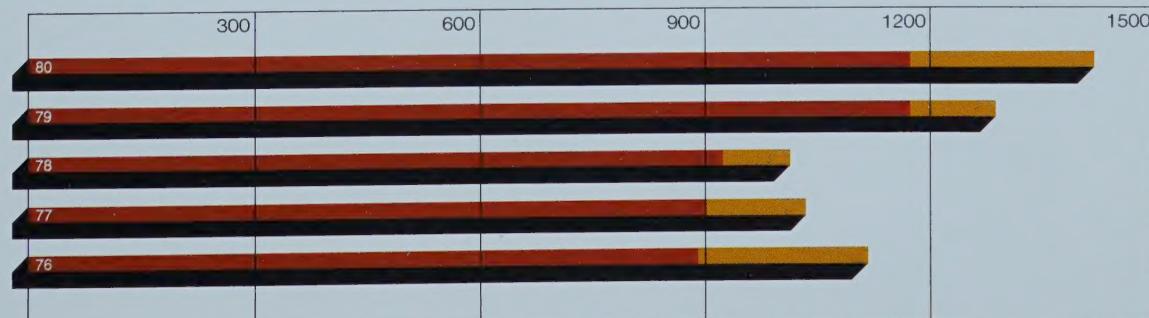
Ross C. Feltz

Manager, Public Relations
and Communications Services

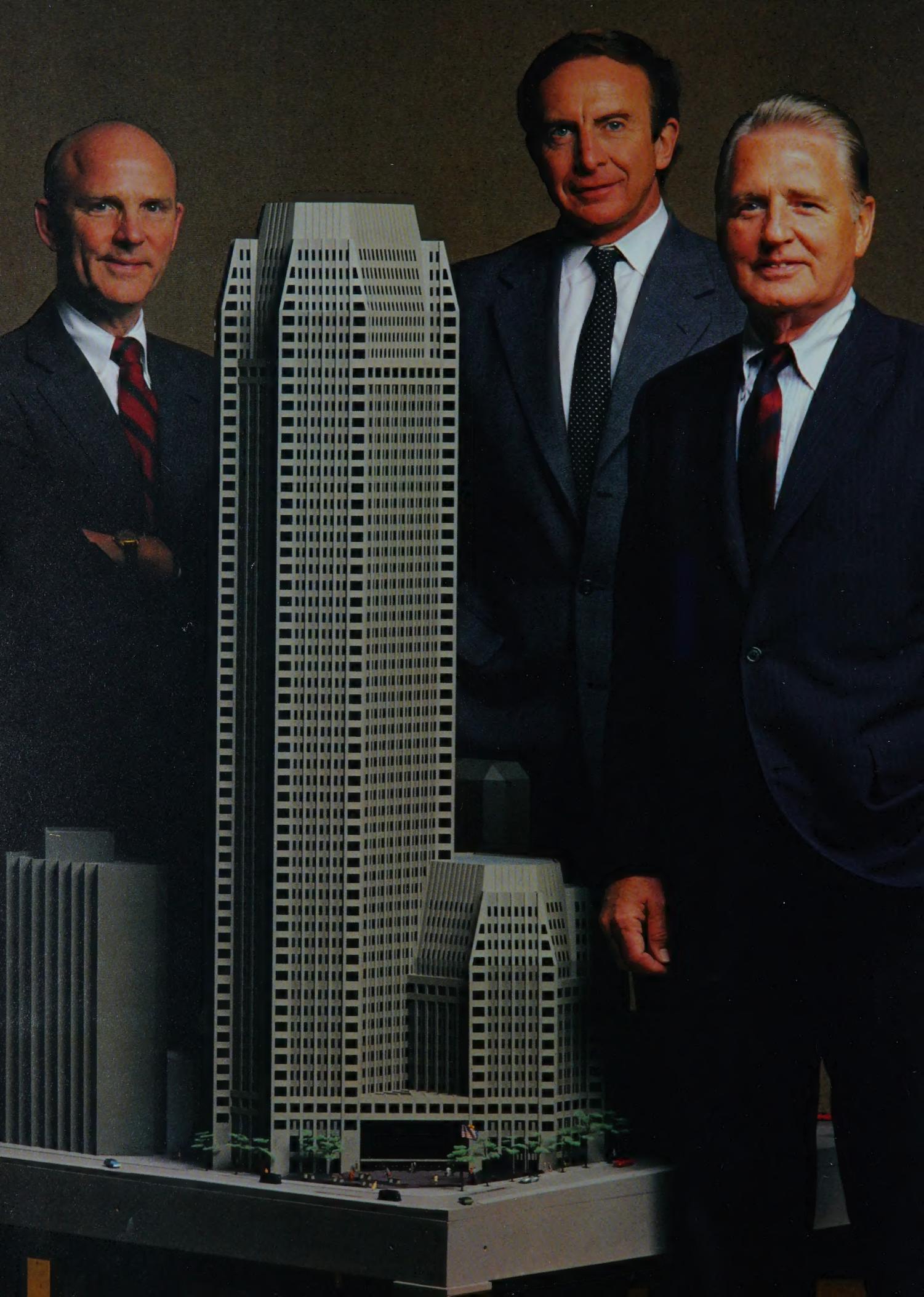
HIGHLIGHTS(In thousands,
except per share)

December 31	1980	1979	1978
Revenue	\$1,113,925	\$ 992,332	\$ 959,044
Net income	21,562	28,180	25,217
Per common share			
Net earnings	\$ 1.69	\$ 2.31	\$ 2.29
Dividends declared	.91	.85	.77
Book value	19.13	18.69	17.27
Backlog			
To be reported as revenue	\$1,417,000	\$1,286,000	\$1,011,000
To be performed	1,173,000	1,173,000	921,000

Earnings per share and common dividends declared have been restated for the 3-for-2 stock split of record date February 4, 1981. Earnings before the split were \$2.54, \$3.47 and \$3.43, and dividends paid on shares prior to the split were \$1.36, \$1.28 and \$1.16, respectively.

REVENUE*
(In millions)NET INCOME*
(In millions)BACKLOG
(In millions)

*From continuing operations



LETTER TO SHAREHOLDERS

Our company's results in 1980 were disappointing. The year can be described as a period in which earnings failed to keep pace with an increased volume of business.

More specifically, it was a year when losses on two civil construction jobs, projected through to contract completion, materially reduced our overall results. The accompanying decline in net income, to \$21.6 million from 1979's record \$28.2 million, served to interrupt a nine-year chain of profit improvement that began in 1971. Stated as earnings per share and adjusted to reflect the three-for-two stock split of record date February 4, 1981, the year's \$1.69 compares to the \$2.31 reported in 1979.

Revenue from operations rose to \$1.11 billion; year-end backlog increased to \$1.42 billion; and work performed reached \$1.24 billion. All are company records. Bookings, meanwhile, exceeded \$1.21 billion, nearly matching the record \$1.28 billion obtained in 1979.

These totals all measure business volume and confirm, in my judgment, the value of operating Dravo Corporation as a balanced enterprise. Unquestionably, a depressed national economy had a negative impact on some company operations. But the complementary nature of our overall activities enabled us to maintain a good level of business throughout the year. Our 1980 earnings performance, therefore, should not be interpreted as representative either of current corporate potential or of our expectations of the future.

This level of confidence was reflected in the January, 1981 decision by the Board of Directors to increase

Corporate Policy Committee: Philip J. Berg, Executive Vice President, Operations; Thomas F. Faught, Jr., Executive Vice President, Finance and Corporate Development; and Robert Dickey III, Chairman and President, with model of Dravo's new headquarters building.

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the quarterly common stock dividend for the ninth consecutive year.

In a strategic sense, 1980 was a year marked by a number of business decisions that contribute to our optimistic outlook. Substantial investments were made to increase our technological orientation and to expand our product lines in areas of exceptional market promise. The purchase, last May, of two businesses formerly operated by McDowell-Wellman Company met both of these important criteria.

A Cleveland research facility included in this acquisition is contributing significantly to our process capability in shale oil extraction. A sophisticated demonstration plant at the facility has undergone extensive modification and is now the site of commercial testing of our traveling grate oil shale retorting process. The process, combined with our long experience in the handling of solids, accounts for our very attractive position in the technology to recover oil locked in shale deposits.

A second unit obtained in the transaction, now operating as Dravo Wellman Company, added the design and installation of unit train unloading systems, including a proprietary line of car dumpers and positioners, to our already broad range of materials handling capabilities. The organization's expertise also includes power plant ash handling systems.

This extension of materials handling skills coincides with a projected increase in export shipments of coal and with the planned construction of coastal terminal facilities. A Dravo Wellman system will be part of a major contract obtained at year end for a rail-to-ship coal terminal to be constructed at Newport News, Virginia. Increased coal exports, meanwhile, are producing added revenue for Dravo Mechling Corporation. Early in 1981, the barge line subsidiary booked a significant contract for the movement of coal to New Orleans.

In a related action, we have reached agreement to acquire the Ryan-Walsh

group of companies. Headquartered in Mobile, this organization reported revenue of approximately \$60 million in 1980. With facilities in Mobile, New Orleans and ten other ports, it is one of the largest cargo handling firms on the Gulf and South Atlantic coasts. Ryan-Walsh handles both bulk commodities and general cargoes and, with other Dravo units, is positioned to benefit extensively from the coal and grain export situation described earlier. We anticipate that the acquisition, which is still subject to approval by Ryan-Walsh shareholders, will lead to operating and marketing synergies with our materials handling and barge transportation activities.

Other developments in 1980 and early 1981 served to expand our technical base. Agreements were reached with HYL, S.A. of Mexico to market the design and construction of iron ore direct reduction facilities incorporating that firm's HYL-III process, and with the developers of the Oxygen Sprinkle Smelting process which improves productivity and provides increased control of pollutants in the smelting of several types of nonferrous metals. In January, 1981 we extended our pulp and paper process technology by acquiring Atlanta-based Paper Industry Engineers, Inc. The firm, well known within the industry, is being merged with the existing pulp and paper organization of Dravo Engineers and Constructors. Headquarters of the combined operation will remain in Atlanta, the heart of the Southeastern U.S. location where most of the industry's new production capacity is scheduled to be built.

Changes in and additions to the organization of engineering construction operations are expected to improve our competitive position during the remainder of this decade. A year ago, we restructured these activities to form a single organization. That restructuring is currently being refined to feature core product groups re-

sponsible for services to respective client industries worldwide with support from regional operating centers. This approach will result in more effective, more responsive deployment of Dravo Engineers and Constructors' considerable human and technological resources.

In a companion move, we increased our competitive position in the construction services market by acquiring three small but respected firms—Livsey & Company, Inc. and Spartan Mechanical Contractors, Inc., both based in Atlanta; and Weyher Construction Company, headquartered in Salt Lake City. A new company, Tectonics Constructors, Inc. was formed to coordinate the operations of these organizations. These companies will increase our flexibility in seeking to meet owner requirements for construction services in targeted geographic areas.

Strategic planning at Dravo assigns appropriate priority to the timely withdrawal from businesses which do not meet performance criteria or otherwise fail to match an evolving corporate profile. Accordingly, our ongoing evaluation of company operations led to a late-1980 decision to discontinue the pursuit of heavy civil or marine construction work except as it may relate to larger project opportunities. Our projections indicate a high degree of competition for a relatively low level of scheduled civil projects. We plan, therefore, to concentrate our resources in the more active process and power-oriented engineering construction areas offering improved profit potential.

Three other organizations were sold or liquidated during the year. They are Dravo Cal-Ore, an equipment sale and rental operation serving the Pacific Northwest; EMP-Projetos, an engineering construction affiliate in Brazil; and Monosteel Pty. Ltd., an Australian manufacturer of overhead cranes and

hoists. These actions reduced 1980 earnings but will enable us to concentrate our efforts in future years on operations capable of supplying an acceptable rate of return.

A detailed account of business activities is presented in this report's Operations Review, but the performance of several units merits mention here as well. Our two most prominent river-related operations reported marked increases over 1979 results. High productivity and sustained bookings activity contributed to an outstanding year for our Neville Island shipyard. And our barge line subsidiary performed with distinction in a generally sluggish transportation market.

New natural resources businesses established in the 1970's began to show positive results. Our large Dravo Lime Company operation in Kentucky, which markets its product principally under long-term contracts for use in stack gas scrubbing at electric power stations, contributed to corporate profits for the first time. Dravo Lime's contribution will increase markedly in 1981 when all generating stations covered by existing contracts are in service. Our joint venture coal mine in Wyoming was officially dedicated in September and is moving toward full production of 1.5 million tons per year more rapidly than originally scheduled.

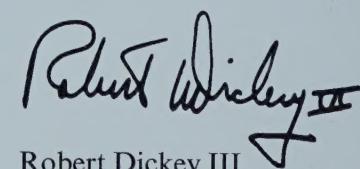
One of our newest energy-related operations also made substantial progress during 1980. The organization of COMCO, a joint venture company formed in 1978 with Florida Power Corporation, was strengthened by the addition of A. T. Massey Coal Company, Inc. The venture has demonstrated the feasibility of producing, transporting and burning a 50-50 mixture of oil and pulverized coal as a power plant fuel. As a result, Florida Power is converting one of its oil-fired generating units to accommodate the mixture and has awarded a five-year fuel supply contract to COMCO. Construction of a production facility is under way on Florida's Gulf Coast,

a principal market area for COMCO products.

Despite sharply reduced profitability, engineering construction operations maintained a high level of business activity. Continuing a pattern of recent years, a sizable part of our bookings represented work outside of the United States. These included a large aluminum smelting complex in Australia, a coke oven battery in Canada and additional concentration and slurry pipeline facilities in Mexico. The latter project is an extension of the large iron ore pelletizing plant assignment we received in 1979. It should be noted that the bulk of our Mexican work, because it is being performed by an affiliate company, is not reflected in our year-end backlog. The project's contribution to backlog is limited to that amount assigned directly to Dravo on a subcontract basis.

Looking to 1981 and the years immediately ahead, we are hopeful that the new Reagan administration can effectively deal with the nation's economic stagnation and the spiraling inflation rate which have marked the past several years. The President's political history and early actions in office certainly demonstrate that he is sympathetic to many of the problems of business and industry.

Given this improved political and economic environment, together with the record backlog of work we have on hand, we cannot help but be optimistic. We fully anticipate that 1981 will produce a significant earnings improvement as we resume the upward trend that characterized our company's performance throughout the 1970's.



Robert Dickey III
Chairman and President
February 20, 1981

ENERGY



Coal (Pages 6-7)



Electric Power (Pages 8-9)



Alternative Fuels (Pages 10-11)



Future Sources (Pages 12-13)

Together with technology and a continued commitment to the maintenance of corporate balance, the relationship of many Dravo operations to various forms of energy is a dominant characteristic of our company. Eighteen of our present 36 strategic businesses engage in energy-associated activities, accounting for fully one-half of 1980 revenues. By 1985, we expect revenues from operations relating to energy to approach 60 per cent.

We began earning our credentials in 1898 by supplying basic construction services to the coal mining industry. Those services expanded as our technology grew, and today the breadth of our coal involvement encompasses every Dravo business segment. Our capabilities in electric power are similarly comprehensive. And our experience in processes to produce synthetic fuels predates the current prominence of that activity by at least a quarter of a century. Looking toward the future, we are establishing a strong position in the extraction of petroleum from unconventional sources and are engaged in the development of more exotic energy forms.

Energy markets will be increasingly active in the coming years. Influenced by the cost and availability of fuels, they also will be increasingly volatile. Whatever the energy options, however, the scope and diversity of our products and services will assure a continued high level of Dravo participation. A summary of our involvement is the subject of this section.

Although the development of U.S. reserves has not occurred as rapidly as anticipated, key statistics continue to indicate a steadily expanding market for coal in the years and decades ahead. A number of factors support the projection for increased coal usage. Oil's reliability of supply remains questionable and its price is certain to rise. Natural gas, while apparently adequate to meet present needs, cannot be relied upon for the long term.

Projections related to demand are also favorable. Exports, about 70 million tons in 1980, should be more than 60 per cent higher by the end of the century. And 1980 shipments to electric utilities—the coal industry's principal market—rose nearly ten per cent from last year's level. Finally, the new administration's stated intention to create a more realistic regulatory climate can only serve to expand coal's role in America's overall energy mix.

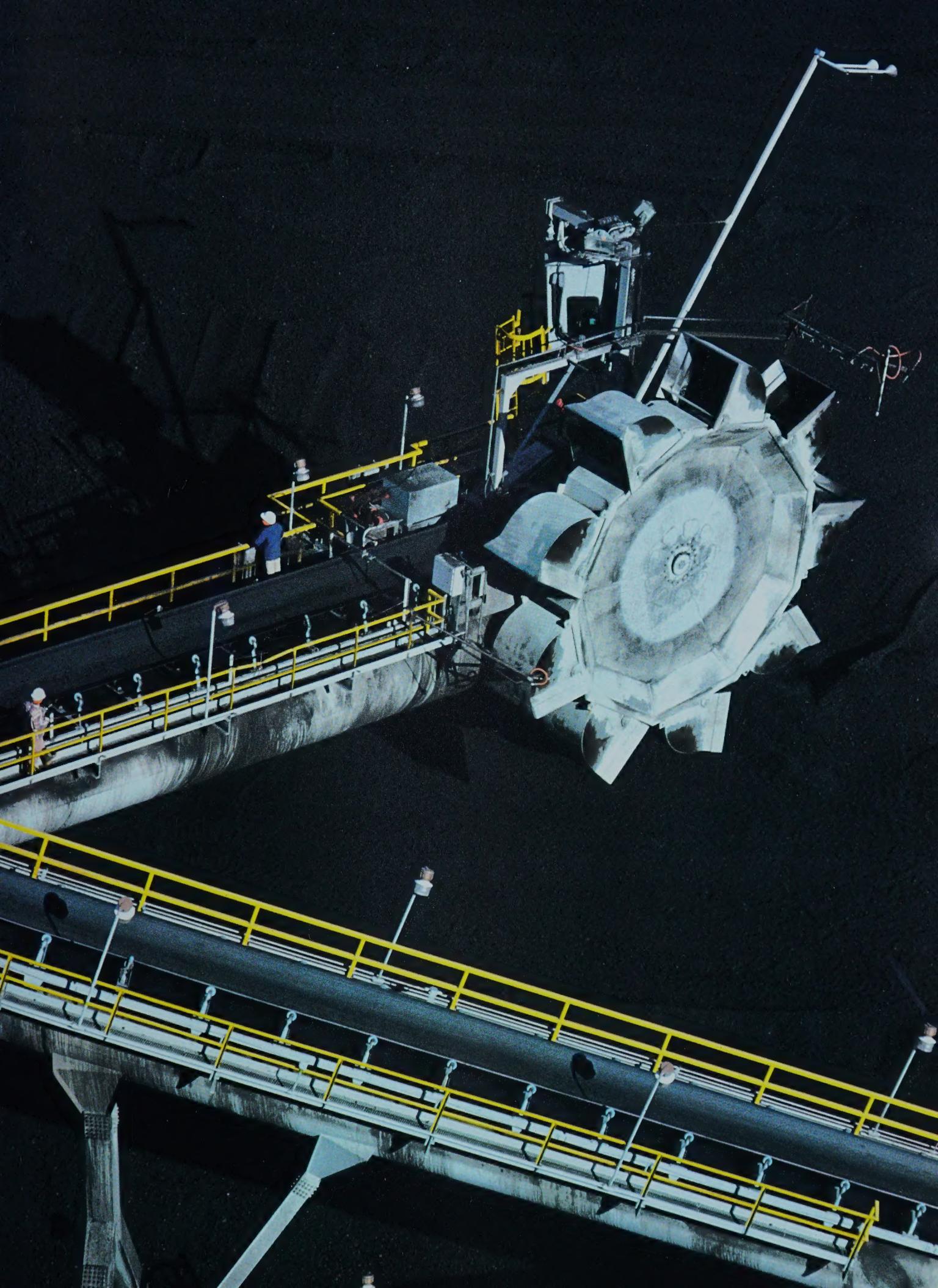
In 1981 and in years to come, these developments should result in significant income gains for our company. Our materials handling and barge transportation businesses began experiencing the effects of increased coal movements in 1980. The construction of marine equipment will follow as river operators add coal-carrying barges and, later, towboats to their fleets.

The greatest concentration of Dravo's coal-related services resides within our engineering and construction organization. However, the sluggish domestic economy of recent years and the absence of a clearly defined energy policy have delayed a number of projects that must accompany any national shift toward coal. We feel that our comprehensive capabilities will enable us to participate extensively as these necessary projects go forward.

The current renewal of interest in coal is global. Dravo is active in coal projects in Australia and Canada and is presently exploring an emerging opportunity in Eastern Europe. We also expect to be involved in assisting those Third World nations whose industrialization programs are tied closely to the development of their own coal deposits.

Photo: Stacker-reclaimer in the coal storage yard of a Dravo-built rail-to-barge transfer terminal in St. Louis.





ELECTRIC POWER

Market opportunities in the electric power industry remain strong for Dravo units through the remainder of the century, but the nature of those opportunities will vary by geographic region. The industrialization of developing nations will require a steady increase in new generating capacity. Domestic construction, meanwhile, will also rise, but at a much more modest rate than during the 1950-1975 boom period.

Operating principally through our New York-based subsidiary, Gibbs & Hill, Inc., we rank as one of the world's larger suppliers of electric power engineering services. Moreover, Gibbs & Hill is widely known internationally and has worked in many of those countries which plan additions to capacity. In fact, engineering assignments from abroad have helped offset a slowdown in U.S. projects for the past several years.

While projections for new domestic construction fall short of the world average, power plant conversions, replacements for obsolete facilities, and the adoption of cogeneration systems will result in an increased level of power industry activity for the next two decades. Use of coal by utilities is expected to increase more than 80 per cent during the period, while the use of oil and gas will decline by nearly as great a percentage. And, despite the public controversy of recent years, currently installed nuclear generating capacity is expected to triple.

Anticipated industry developments will also benefit several manufacturing and natural resources operations. Our pipe fabrication unit, recognized as a leading supplier of power plant piping, can expect to profit from any gain in utility construction. A resurgence of nuclear, with its stringent quality control standards, offers particular promise. And plant conversions to coal will further energize an already active market for Dravo materials handling equipment.

Electric utilities also are principal clients for the products of Dravo Lime Company and Carbon County Coal Company, two organizations which will contribute significantly to corporate results. Increased coal usage by the power industry is central to our plans to expand our lime and coal activities, either at their present sites or at other geographic locations.

Photo: Large coal-fired plants such as this 1,675-mw facility near Pittsburgh will be providing an increasing amount of America's requirements for electricity.





ALTERNATIVE FUELS

The synthetic fuels industry, one of America's newest, is also proving to be among its most volatile. Tied closely to actions by government, the construction of facilities to produce synthetic oil and gas are frequently contingent upon specific policy decisions made at the federal level. Consequently, projections both of the timing of actual implementation of synfuels programs and of subsequent fuel quantities produced remain uncertain.

There will be a synthetic fuels industry, however, and Dravo possesses numerous capabilities to contribute to its development. Our process experience, for example, dates back to 1947 and encompasses almost every proven technology for the production of hydrocarbon fuels from coal. Currently, we are serving as architect-engineer for a demonstration-scale coal conversion plant which will produce synthetic crude as well as pipeline-quality gas. In light of the present emphasis on liquefaction, those gasification processes which also yield significant quantities of oil hold an advantage over gas-only technologies.

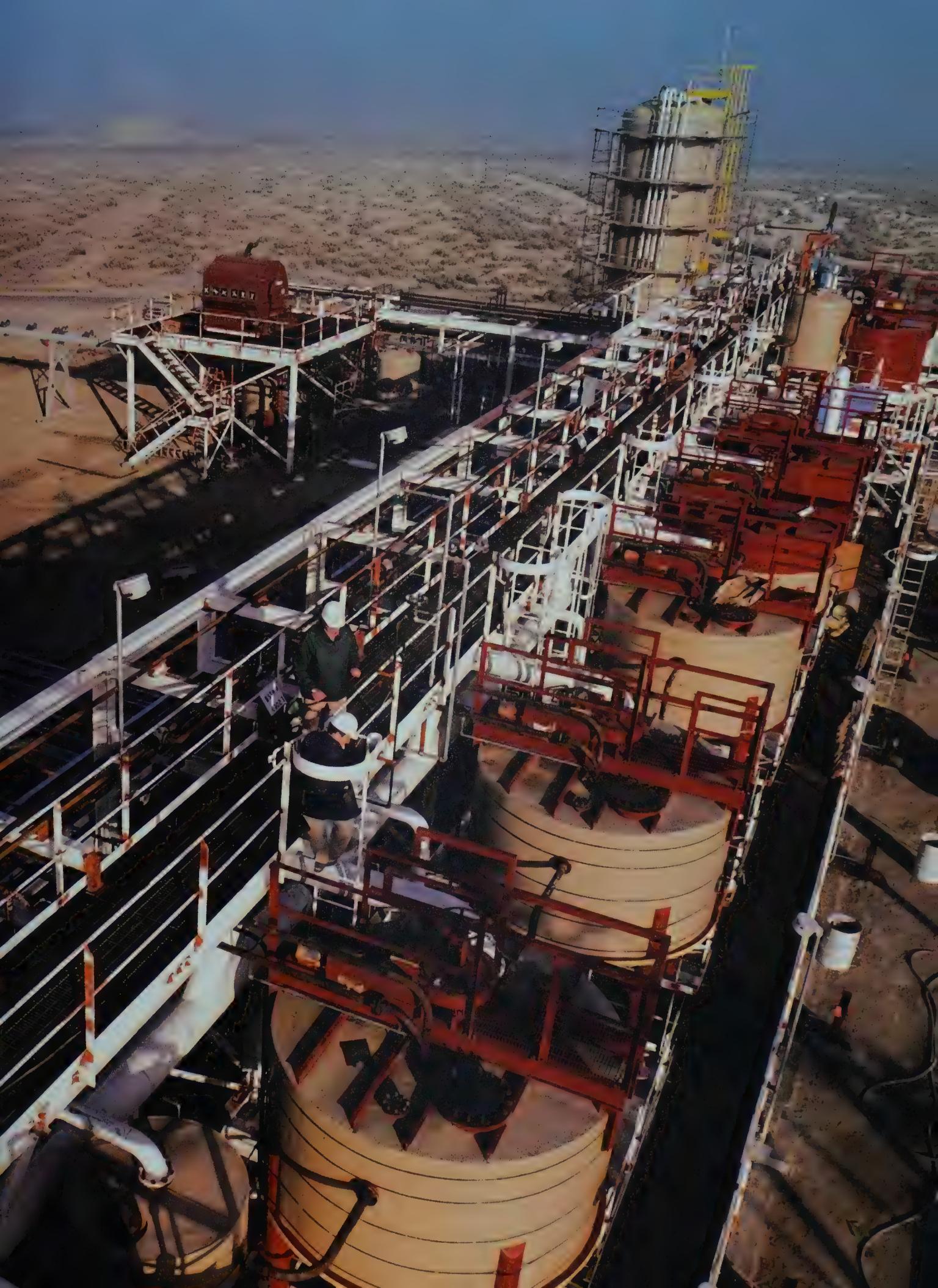
Alternative fuels are not limited to converted energy. They also include the billions of barrels of oil trapped in shale, tar sands and diatomaceous earth as well as coal-oil mixtures and other composites. In contrast to synthetic fuels, development of these sources is concentrated in the private sector. Given the urgent need for oil, or even for mixtures reducing the use of oil, we anticipate that planned programs will go forward as rapidly as technology and the availability of capital permit.

We are active in a number of development projects employing oil extraction processes. Later, when the projects move toward the commercial stage, we expect to increase our level of participation as the ability to handle large quantities of solids becomes an increasingly important factor in supplier selection.

In the related field of composite fuels, we have joined with two joint venture partners to gain a leadership position. The venture received a five-year contract to begin supply of its principal product, a 50-50 coal-oil mixture, in 1982.

Photo: This Dravo-built pilot facility, when completed later this year, will extract oil from deposits of diatomite in Southern California.





FUTURE SOURCES

As current finite reserves are depleted or become too costly to extract and employ, major shifts in the world's energy matrix will be inevitable. This reordering is likely to assign increasingly prominent status to energy forms not now in widespread use. Research programs in the United States and elsewhere have identified more than a dozen technologies that bear commercial promise. And to a great extent these development efforts are focusing on sources, such as the sun and the sea, of renewable energy capacity.

The most obvious of these is solar power. To date, only limited, small-scale applications have proven practical, but an anticipated breakthrough in photovoltaic cell technology could result in the production of power on a far larger scale.

We have been involved in the development of solar technology and are presently supplying engineering services which will enable an oil-fired power plant in the Southwest to also operate as a solar unit.

The world's oceans are another target of extensive energy research. Of a number of approaches being explored, the potential application of variances in water temperatures to drive power plant turbines is perhaps the most practical. The concept is Ocean Thermal Energy Conversion (OTEC), and we are engaged in two projects in the Pacific to demonstrate its commercial application.

The nature of our role in the development of these renewable sources is typical of the Dravo approach to emerging energy technologies. We direct our resources to the refinement and commercialization of new processes. And our success ratio to date has contributed to the breadth of energy-related products and services we now offer.

The effects of our current involvement in solar, OTEC and other new forms on near-term corporate results will be insignificant. These projects, however, are likely to qualify us for later, more substantial returns. And, with participation in second and third generation development activity, they will contribute to our continuing ability to remain a major supplier to the worldwide energy market.

Photo: Renewable resources, such as the sun and the sea, offer potential for solving many of today's critical energy needs.







Engineering Construction: Revenue of Dravo Engineers and Constructors, formed to consolidate our worldwide engineering and construction operations, increased to \$464.8 million. Pre-tax income, however, declined sharply to \$5.4 million, primarily reflecting the anticipated losses over the lives of two civil construction contracts, write-offs resulting from the disposal of two overseas affiliates, and from funds utilized for technological development, notably our proprietary oil shale retorting process.

While bookings held at a good level, the nation's depressed economic conditions and the high cost of borrowed money resulted in several other projects planned by our clients being deferred or cancelled.

Early in 1981, Dravo Engineers was restructured to better apply its full range of technologies and services throughout the world. The new organizational structure involves a network of regional operating centers providing support to core product groups responsible for worldwide marketing of services to particular industries.

Process plant design and construction activities and mine design and construction will be carried out through regional operating centers in Pittsburgh and Denver. A similar facility is planned for Atlanta.

Power industry operations will be based at the New York headquarters of Gibbs & Hill, Inc., a subsidiary, and at regional operating centers in Omaha, Dallas and San Jose. The latter, established early in 1980, already possesses a multi-disciplined staff and has booked several significant study contracts.

Projects outside the United States will be performed by engineering subsidiaries or affiliates

Top operating management: Seated, Richard F. Smail, President, Dravo Equipment Company; Charles A. Patten, Group Vice President, Manufacturing; James R. Sharpe, President, Dravo Engineers and Constructors; and James P. Kelly, Group Vice President, Natural Resources. Standing, Lester E. Sutton, President, Dravo Mechling Corporation, and Dudley E. Dawson, Jr., Chairman, Southern Industries Corporation.

located in The Netherlands, Italy, Spain, Mexico, Taiwan, Australia and the Philippines, with technological and management support from domestic units on major projects.

This decentralization of engineering operations enables us to be in close geographic proximity to clients and, at the same time, will broaden our access to sufficient numbers of qualified professionals required to maintain the growth rate established in recent years.

New business efforts are being concentrated in areas requiring a relatively high level of technological expertise and in markets of particular growth potential, notably energy, minerals and metals, chemicals and pulp and paper. Accordingly, we have discontinued the pursuit of heavy civil and marine construction work except as part of larger, overall industrial or utility projects.

In similar actions to improve results, two unprofitable operations—EMP-Projetos, an engineering firm in Brazil, and Monosteel Pty. Ltd., an Australian manufacturer of overhead cranes—were sold.

Bookings of new business for the petroleum and chemical industries increased during the year.

Two contracts from a major domestic oil company totaling nearly \$50 million represent increased involvement in a growing market for renovation of refineries to handle the heavier crudes that constitute a large part of today's world supply. Similar services are being provided at Pennzoil Company's Rouseville, Pennsylvania refinery, and a major wastewater treatment expansion was completed at Getty Refining & Marketing Company's refinery in Delaware.

Overseas, engineering and procurement neared completion and field construction began on a major project for ARAMCO: the design and construction of a 600,000-barrel-per-day crude oil desalting facility and modifications to an existing gas/oil separating plant. The work, at Safaniya on Saudi Arabia's east coast, is valued at more than \$100 million. We were also awarded engineering and procurement work for a chlor-alkali and



ethylene dichloride plant for Saudi Petrochemical Company at the new Royal City of Jubail. A \$20-million activated carbon plant was completed for The Carborundum Company in Oklahoma.

Our waste disposal technology was broadened through an agreement with Germany's Bayer, A.G. to design and build advanced hazardous and toxic chemical waste incineration systems. They will incorporate a process demonstrated since 1977 at Bayer's chemical complex at Leverkusen, West Germany, which burns 25,000 tons of waste annually while meeting environmental standards.

We continue to play a prominent role in the field of developing alternative fuels, and 1980's activities featured Dravo developments in oil extraction from sands and shales.

We are engineering the underground facilities for Occidental Petroleum Corporation's *in situ* shale oil extraction project in Colorado.

In mid-year we acquired the Cleveland research facility of McDowell-Wellman Company, which includes a large, sophisticated pilot plant for refinement and demonstration of the Dravo traveling grate oil shale process. The facility has been modified extensively to adapt it for testing the process. Initial industry response is encouraging, and we are anticipating contracts for demonstration programs during 1981.

A pilot plant for Getty Oil Company, employing a Dravo solvent extraction process to recover oil from diatomite, neared completion. An agreement was signed with Standard Oil Company of Indiana to pool technological efforts related to extraction of oil from tar sands.

We continued our assignment as architect engineer for a \$500-million Department of Energy-

Top: Coke-pushing operations at a new, 72-oven, Dravo-built coke battery in Indianapolis.

Second Row: Part of a major wastewater treatment system expansion engineered and constructed at a Delaware refinery (left); Shale oil retorting pilot plant at our new Cleveland research facility (right).

Third Row: New computer-aided design system at our Dallas regional office (left); Work on a 5,800-foot-deep nickel mine shaft in Ontario, completed later in the year (right).

Bottom: Gas turbine generating unit near Saudi Arabia's capital, Riyadh, for which we provided startup, operator training and initial operation services.

sponsored demonstration plant to produce pipeline quality gas and a synthetic crude from coal. The scope of this work, for the Illinois Coal Gasification Group, was increased by an additional \$8-million engineering contract. We are also involved, as a subcontractor, in several other synfuels projects being funded by DOE.

We are becoming increasingly active in the construction and modernization of pulp and paper production facilities. Work began on the design and construction of a major addition to Georgia-Pacific Corporation's Palatka Division mill in Florida.

Early in 1981 we acquired Paper Industry Engineers, Inc., a respected consulting engineering firm headquartered in Atlanta. The company will be merged with our existing pulp and paper organization, significantly expanding our technology in this area. Ultimately, the entire pulp and paper operation will be based in Atlanta, as a large percentage of planned capital expenditures by that industry are to occur in the Southeast.

The level of 1980 work for the minerals and metals industry reflected the general economy, although several significant new orders related to iron and steel, coke, aluminum and energy minerals were obtained.

Dravo de Mexico, an affiliate formed in 1979 with Sidermex, the largest steel company in Mexico, began engineering and construction of an iron ore concentrating and pelletizing plant near Monterrey. The project was expanded to include both a second concentrator and a pipeline to transport ore, in slurry form, to the pelletizing plant.

Our range of services to the steel industry was broadened significantly through an agreement to design and build iron ore direct reduction plants incorporating the market-tested HYL-III process. The agreement is with HYL, the iron and steel technology company of Mexico's Grupo Industrial

Alfa, the largest private industrial company in that nation.

We also concluded an arrangement with Phelps Dodge Corporation to conduct full-scale testing of the Oxygen Sprinkle Smelting process, for which we hold worldwide rights. The process, demonstrated successfully in pilot testing, offers improved productivity and pollution control in production of copper, nickel and cobalt matte through retrofitting of existing reverberatory furnaces.

Despite the sluggish steel market, bookings were received for additional engineering on a new coke oven battery for Algoma Steel Corporation Ltd., a coke oven desulfurization facility for Wheeling-Pittsburgh Steel Corporation and a coke plant emissions control system for Jones & Laughlin Steel Corporation. A 72-oven coke battery incorporating advanced production and pollution control technology was completed early in 1980 for Citizens Gas & Coke Utility in Indianapolis.

In the field of energy minerals, an order was obtained from American Electric Power Service Corporation for major additions to a coal preparation plant in Ohio.

Although bookings with the electric utility industry continued at a relatively low level in 1980, the year was marked by several significant developments.

A major booking for a cogeneration facility came from Otter Tail Power Company. The 135-megawatt coal-fired plant near Jamestown, North Dakota will furnish thermal energy to a nearby barley malting plant in addition to its basic output of electric power. Our work includes design and construction management.

Other new power bookings include preliminary engineering for two 310-megawatt coal-fired units in Argentina, construction management services for five generating units in Korea and the United States and additions totaling more than \$22 million to contracts in progress for nuclear and fossil plants in the United States, Spain and Taiwan.



A study was begun on the feasibility of using gasified coal to fuel two existing power stations in New York, and a contract was negotiated with the Department of Energy for conceptual design work for the modernization of a spent nuclear fuel reprocessing facility in Idaho.

Work continued on operation and maintenance contracts for several power plants in Saudi Arabia and on Strategic Petroleum Reserve sites in Texas and Louisiana, while conversion of a Louisiana salt mine to an oil storage facility was completed.

Manufacturing: Manufacturing Group operations produced significant gains in both income and revenue from levels reported a year ago. Income in 1980 rose to \$23.6 million from last year's \$16.2 million, and revenue of \$300.4 million compared to \$231.4 million in 1979.

The increases were keyed by the performance of Engineering Works Division, operator of one of the nation's largest inland shipyards. The unit continued to capitalize on a substantial backlog of 1979 orders and, after a sluggish start, experienced a mid-year resurgence in hopper barge bookings. In all, 319 hulls were launched, the second highest total in our history. With current business activity concentrated on hopper barges, a record number of launchings is expected in 1981.

Projections for increased shipments of grain and coal indicate a continued active market in 1981. Traditionally, periods of significant barge construction are followed by increased demand for towboats as river operators balance their fleets. Five Dravo Viking vessels were launched in 1980, including the first two of four to be built for the People's Republic of China. We anticipate that towboat construction will accelerate during the

Upper Left: High-speed, rail-to-barge coal transfer terminal completed at Cora, Ill., on the Mississippi River.

Upper Right: Launching our 50th Viking towboat since introduction of that class of boats in 1972.

Center: Grinding the edge of a section of flanged piping at our Marietta, Ohio pipe fabrication shop.

Lower Left: Tank barge construction at our Neville Island, Pa. shipyard.
Lower Right: Dravo Wellman rotary car dumper at a coal transfer facility in St. Louis.

remainder of 1981 and beyond. Similarly, our Dravo SteelShip subsidiary, located in Pine Bluff, Arkansas, is also experiencing increased bookings for its line of smaller-sized towboats, supply vessels and utility boats.

The national priority now being assigned to coal, particularly those activities relating to exports, has stimulated a rise in orders and inquiries for materials handling equipment and terminal facilities.

Our extensive experience in this type of work resulted in the award, at year end, of a major contract for design and construction of a totally integrated train-to-ship coal terminal for Massey Coal Terminal Corporation at Newport News, Virginia. The facility will include two rotary car dumpers, a ship loader and a computer-controlled blending system. It will export 10 to 15 million tons of coal annually.

Dravo Wellman, our new Cleveland-based subsidiary, is a world leader in design of unit train unloading systems. This capability complements our existing materials handling expertise and further increases our opportunities to participate in this expanding market.

The unit traces its beginnings to 1896 and has designed and built a broad range of materials handling facilities on five continents. In addition to unit train unloading systems, its projects include power plant ash handling systems, bulk transfer facilities, marine terminals and bulk conveyor systems.

A significant new contract booked by the unit covers the expansion of a rail-to-ship phosphate transfer terminal at Tampa, Florida, for the Seaboard Coast Line Railroad Company.

Engineering Works Division complemented its existing materials handling expertise through a license agreement with a German firm, Takraf/GDR, to design and market complete open-pit bucketwheel excavator mining systems and to manufacture related equipment. Bucketwheel excavators, widely used in Europe, are effective in open pit mines with soft overburden.

Results from other Manufacturing Group activities were mixed, with virtually all operations

affected by the general economic slump. Combining high productivity at its plants in Marietta, Ohio and Charlotte, North Carolina with an aggressive marketing effort, our Pipe Fabrication Division recorded improvements over its 1979 performance. The division is adapting its people and facilities to expand its pipe fabrication services to process industries. As part of this effort we have broadened our capabilities to include production and fabrication of rubber-lined and plastic-lined piping to meet specialized abrasive and corrosive applications in the chemical and other process industries.

The depressed market for piping for nuclear and fossil-fueled power generating facilities, traditionally our major source of this business, showed some signs of resurgence. An \$8-million order was received at year end to supply piping for a two-unit, coal-fired power station in Texas. One of the largest sizes of piping ever fabricated by the division—18 sections of 96 and 78-inch-diameter pipe for a water intake—was shipped to the Philippines where it will be installed in a nuclear power station.

The low level of industrial construction of all types markedly affected the operations of our Fabricated Products Division during 1980. Markets for our heating, ventilating and air conditioning equipment were particularly weak, and sales of our grating and handrail products were also limited.

Dravo Lectro Quip continued the business momentum it established during its first year. The department supplies products and services for reclaiming valuable solids from process fluids, specializing in proprietary separation processes and dewatering equipment. A Lectro Quip system installed during the year at a packing house of Swift Canadian Co., Ltd. in Lethbridge, Alberta, is enabling the facility to meet the city's strict pollution control guidelines and to recover marketable by-products.



Natural Resources: Results of our natural resources activities showed improvement for the fourth consecutive year, with earnings of \$26.7 million on revenue of \$233.6 million. This work is performed by two units—the Natural Resources Group, based in Pittsburgh, and Southern Industries Corporation, headquartered in Mobile, Alabama.

Natural Resources Group operations comprise a large limestone mining and lime calcining facility in Kentucky, a joint venture coal mine in Wyoming and several aggregates operations in the Ohio Valley. The latter operations were expanded, early in 1981, through the acquisition of selected assets of McDonough Corporation's former Ohio River Sand & Gravel Division in the Parkersburg, West Virginia area. Included in the purchase were marine equipment, real estate and aggregate inventories.

Dravo Lime Company's one-million-ton-per-year lime complex at Maysville, Kentucky, which went into service four years ago, began contributing to profits in 1980.

By year end, *Thiosorbic*[®] lime from Maysville was being shipped to eight electric power generating units for use in removal of sulfur dioxide from stack gases. In each case, results have exceeded design specifications, attaining removal efficiencies in excess of 90 per cent.

Four additional generating units covered by long-term supply contracts are in various stages of startup and expect to be operational during the first quarter of 1981, bringing the Maysville plant to full operational capacity. In anticipation of additional supply contracts, engineering for a fourth large kiln at the facility will begin during the year.

A long-term contract was obtained from a Kentucky electric utility for lime for stabilization of sulfate sludge, a waste product from SO₂ scrubbing, a usage similar to that employed earlier by an Indiana utility.

Top: Our new 2,000-hp towboat *Elizabeth D* and its tow of aggregates passing Pittsburgh's Golden Triangle.

Center Left: Impoundment area built to handle treatment of waste sulfur dioxide sludge at a West Virginia power station.

Center Right: Delivery of ready-mixed concrete at a cement plant construction site on the Gulf Coast (above); dispersal of shell into Mobile Bay as part of a state-sponsored program to encourage oyster propagation (below).

Bottom: Continuous mining machine at work at our joint venture Wyoming coal mine.

We are also supplying lime to several other markets. One is the steel industry, where it has proven effective in extending refractory life in addition to its basic function as a fluxing agent. Another is industrial and municipal water treatment. *Thiosorbic* lime is also being shipped to a new Dravo terminal in Houston and marketed in that area for specialized applications such as soils stabilization.

Carbon County Coal Company, our joint venture with Rocky Mountain Energy Company, a Union Pacific Corporation subsidiary, officially dedicated its Carbon No. 1 Mine near Hanna, Wyoming, in September. By year end, production reached 500,000 tons, with an output of one million tons planned for 1981.

The mine's production is committed under a long-term contract to a Northern Indiana Public Service Company power plant located in Wheatfield, Illinois. The coal is shipped by 100-car unit trains for the 1,000-mile journey.

While early production at the mine is by conventional mining methods, long-wall equipment will be installed early in 1981 and operating by mid-year. This relatively new and efficient method, developed in Europe but finding increased favor in North America, promises high productivity at minimum costs.

The facility is scheduled to reach full production of 1.5 million tons per year in 1983. With recoverable reserves at the site of more than 150 million tons, we anticipate opening a second mine at Hanna later in the 1980's.

Shipments by the Aggregates Division decreased during 1980, reflecting the general slowdown in the nation's economy. However, stringent controls on costs enabled us to substantially reduce the impact on operating income.

Several significant new contracts were obtained calling for supply of aggregates for sewage system construction in Clermont County near Cincinnati and aggregates and ready-mixed concrete for construction of Corridor G, a part of the Interstate Highway System south of Charleston.

The division added a new towboat, the 2,000-horsepower *Elizabeth D*, to its fleet engaged in

dredging aggregates from the Ohio River and transporting them to market. Additional aggregate deposits were obtained in the Cincinnati area, and one former ready-mix plant was sold and another leased in the Pittsburgh area.

Opportunities in other natural resources development activities, including precious and strategic metals, are being reviewed in detail.

Southern Industries turned in its second consecutive good performance since becoming part of Dravo. Results, however, were down slightly, reflecting the depressed economy in the Gulf Coast States during the year.

A pronounced drop in public and private construction slowed sales of aggregates including sand, gravel and shell. Also affected were sales of such construction materials as ready-mixed concrete, concrete block and asphaltic mixes.

Another aggregate marketed by Southern Industries is crushed slag, a by-product of phosphorous production. A new contract was negotiated with Hooker Chemical Company to process and market slag from its Columbia, Tennessee phosphorous plant. A sales agreement was reached with a new supplier, Stauffer Chemical Company, to market slag from its plant in Mt. Pleasant, Tennessee.

Radcliff Materials, one of several Southern Industries operating units, furnished the State of Alabama more than 100,000 tons of shell for "planting" on the floor of Mobile Bay to encourage oyster propagation. The shell planting program was established after Hurricane Frederic and resulting flooding in 1979 diminished the bay's oyster population.

Southern Industries also produces about 700,000 tons of chemical lime annually at its three plants, located in Alabama, Louisiana and Texas, marketing this product for a broad variety of industrial and construction applications. Lime sales decreased slightly during the year, reflecting lower shipments to the paper and steel industries, two important markets.

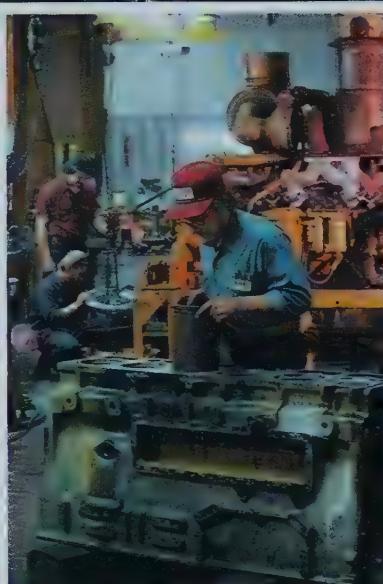
One of the three kilns at the firm's Longview lime plant near Birmingham, Alabama was modified to produce dolomitic lime, a product with a high magnesium content. This product will be marketed to the steel industry. Plans were approved to proceed with construction, in 1981, of a large new



kiln at the Longview plant that will bring SI Lime Company's total capacity to one million tons per year.

Southern Industries plans to further expand its aggregate operations in the Houston area. A special unit train rate was approved late in the year by the Texas Railroad Commission, permitting us to bring aggregates into Houston from the San Antonio area at lower cost. An anticipated million tons annually of material will be moved by unit train to a terminal owned by Southern Industries on part of a 90-acre tract along the Houston Ship Channel. An addition to the terminal is planned for 1981, which will enable the company to load barges. A barge unloading facility at this site handles incoming shipments of *Thiosorbic* lime from Maysville. The lime is being transported from Maysville to Houston by Dravo Mechling. A substantial portion of the ship channel property will remain available for future development.

Three towboats, built at Dravo's Pine Bluff, Arkansas shipyard, and 20 barges were added to Southern Industries' fleet of marine equipment. The vessels will be used to transport some three million tons of limestone, sand and clay annually for Ideal Basic Industries, Inc. The shipments will begin during the first quarter of 1981 when the firm's new cement plant on Mobile Bay is completed. The material will be barged from Ideal's quarry on the Alabama River.



Equipment: Record high interest rates, together with the nation's depressed economy, severely impacted results of Dravo Equipment Company during the year. Revenue was \$61.2 million, but a loss of \$1.1 million was experienced.

A continuing low level of business with the logging and construction industries in the Pacific Northwest resulted in the decision to phase out operations of Dravo Cal-Ore, one of three Dravo Equipment Company divisions. By year end,

Top: Dravo Mechling heavy-duty barge being loaded at our Marietta plant with massive sections of piping destined for a power plant in the Philippines.
Center Left: Deckhands at work on a downbound tow on the Illinois River.
Center Right: Rebuilding construction equipment at Dravo Doyle's main facility at Warrendale, Pa.

Bottom: Delivering a tow of coal—an increasingly important Dravo Mechling cargo—to a southern export terminal.

all of that organization's fixed assets had been sold, together with much of its inventory of equipment and parts. Final liquidation is expected by mid-1981.

Dravo Doyle in Western Pennsylvania and Dravo Marks in Ohio were also affected by the adverse economic conditions. Both units sell, rent and service equipment for the surface mining and construction industries, while Dravo Doyle also handles several lines of industrial equipment.

Despite the emphasis on coal in the nation's energy plans, surface mining activity in the areas served by Dravo Equipment Company has been down from recent years. Construction industry activity has also been at a low level, as has the steel industry, a major customer for industrial equipment.

High interest rates caused many potential customers to defer purchases of new equipment and, at the same time, increased our expenses related to the stocking of parts and equipment. Accordingly, both units took steps aimed at holding down inventories as much as possible.

Helping to offset the lower volume of sales was a marked increase in parts, service and reconditioned equipment business. Dravo Doyle's component rebuilding shop at Warrendale did roughly twice the business it did a year earlier, and Dravo Marks' track press repair facility at Hopedale, Ohio, also showed a high level of activity.

Transportation: Dravo Mechling, our barge transportation subsidiary, reported income of \$10.3 million, 47 per cent higher than 1979. Revenue of \$76.7 million was 15 per cent above the previous year.

The improved performance reflected the results of a new organizational structure implemented late in 1979, as well as better weather conditions than those experienced during the previous several years. These factors helped to offset the depressed conditions affecting many sectors of the economy.

Shipments of coal, lime and liquid chemicals increased during the year, helping to counter declines in other cargoes such as iron and steel products, salt and ores. Grain shipments were at a high level, although affected to some extent by the government's grain embargo against the Soviet Union.

We are actively promoting the concept of intermodal transportation, in which two or more forms of transportation are combined to provide the shipper with optimum service. We pursued a number of these opportunities during the year. One result has been collaboration with the Chessie System to provide joint rail-barge service for steel and other products.

We have capitalized on the increased movement of export coal through the Port of New Orleans and have committed additional barges for contracts for that business. With available terminal capacity and mid-stream transfer operations in the New Orleans area, the barge industry is able to provide shippers with an alternative to congested East Coast ports.

Improvements in efficiency included increased barge and towboat utilization, lower casualty expense and a reduction in administrative expense. A number of older, obsolete barges were retired from service. Sixty new units will be added to the fleet during 1981.

The year saw an improvement in overall operating efficiency, resulting in our highest towboat utilization rate in several years.

Locking delays continued at several outdated structures on the Upper Mississippi and Ohio rivers. Replacement of these facilities remains dependent on the formulation and adoption of government policies which will enable all forms of transportation to operate at maximum efficiency.

The Waterways User Tax on fuels became effective during the final quarter of the year, and freight rates subject to escalation were adjusted accordingly.

Early in 1981 Dravo Mechling signed a contract with the Chang Jiang Shipping Administration of the People's Republic of China to train crews for the operation of the four new towboats being built by Engineering Works Division and scheduled for delivery in mid-1981. A related contract obtained by Dravo Engineers and Constructors covers technical assistance with a ship-to-shore communications system.

FINANCIAL SECTION

FINANCIAL REVIEW

Dravo Corporation's 1980 net income of \$21.6 million represents a decline of 23 per cent from last year's \$28.2 million. Earnings per share, restated for the 3-for-2 stock split of record date February 4, 1981, were \$1.69 compared to \$2.31 in 1979. Earnings per share before giving effect to the split were \$2.54 in 1980 and \$3.47 in 1979.

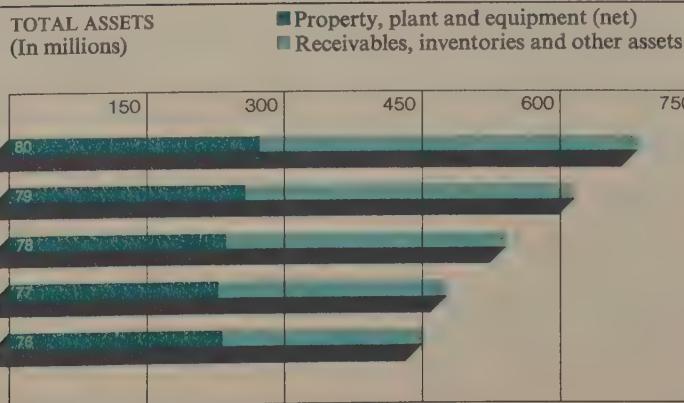
Revenue increased for the fourth consecutive year with a 12-per cent gain over 1979 establishing a new record at \$1.11 billion. Work performed more than paralleled revenue, increasing in excess of 22 per cent as compared to last year. Year-end backlog of future revenue increased for the third consecutive year, also a record at \$1.42 billion.

LIQUIDITY AND CAPITAL RESOURCES

Working capital at year-end 1980 was \$140.2 million, representing a six-per cent increase over the previous year. This increase compares favorably with a 22-per cent increase in 1980 billings for work performed. Receivables, which represent the largest component of working capital, increased approximately 19 per cent. However, the increase in receivables was due almost entirely to the higher level of Dravo's business activity since the average turnover lengthened by less than one day. Effective management of working capital facilitated a \$9.8-million reduction in notes payable and enabled Dravo to conclude the year with total liquid assets approaching \$29 million.

Working capital increased 18 per cent in 1979 over 1978 to \$131.8 million while the level of business activity, as measured by billings for work performed, rose 10 per cent. Increases in accounts receivable and inventories were 13 per cent and 24 per cent, respectively, and represented the primary reasons for the growth in working capital.

Of the total \$75.5 million in financial resources provided in 1980, 84 per cent was generated internally by Dravo's various businesses. This compares to 58 per cent in 1979 and 55 per cent in 1978. This substantial improvement in internally generated capital during the year limited the need for additional long-term debt to \$317,000 in 1980 compared to \$32.6 million in 1979. Funds in 1980 principally were used to expand and improve physical facilities required for future growth. The



total financial resources of \$58.2 million in 1979 were used to finance additions to property, plant and equipment and to meet the increased working capital requirements. Additional long-term borrowings in 1979 included a \$25-million, fixed-rate term loan which replaced floating rate short-term borrowings.

Financial ratios enjoyed some improvement during the year. The corporation's capitalization ratio, which was 38 per cent in 1978, strengthened from 39 per cent in 1979 to 36 per cent in 1980. Debt-to-equity in 1980 was .59 compared to .70 for the year earlier and .66 in 1978. Total indebtedness decreased 10 per cent while net worth improved by six per cent in 1980.

Dravo's cost of capital remained at a favorable level in 1980 with the average rate of interest on total debt outstanding at year end approximating 10 per cent. Total short-term lines of credit available and unused at year end were \$100.4 million in 1980 and \$97.3 million in 1979. The present relationship of debt to equity, combined with the available internal and external financing flexibility, should provide Dravo a sound basis for financing both existing operations and new businesses as the corporation moves into 1981 and beyond.

Looking forward to 1981, major commitments for capital expenditures are expected to exceed \$75 million. This compares to approximately \$47 million in 1980 and will represent the corporation's largest expenditure for new facilities to date. Once again, internally generated funds will provide the major part of these requirements. In addition to the projected capital expenditures for 1981, financing in the form of a long-term operating lease has been arranged for the acquisition of 60 new barges for Dravo Mechling.

In summary, it is anticipated that Dravo's overall financial position at year-end 1981 will be as favorable as at the end of 1980.

RESULTS OF OPERATIONS

Dravo Corporation made its initial entry into the billion-dollar revenue category in 1980. The record level of \$1.11 billion, a 12-per cent increase over 1979, was attained through revenue increases in four of five business segments. 1979 revenue of

\$992.3 million had represented only a 3.5-per cent increase over 1978 results.

Net income of \$21.6 million for 1980 was 23 per cent below 1979's \$28.2 million, and 14 per cent below 1978's \$25.2 million. On a restated basis, earnings per share fell 27 per cent to \$1.69 from last year's record \$2.31 earnings, and 26 per cent from 1978's \$2.29. Per share earnings are based on a 1980 average of 12.5 million shares outstanding compared with 12 million in 1979 and 10.8 million in 1978. The 1980 increase in average shares outstanding resulted principally from acquisitions, and the 1979 increase was due to a common stock offering late in 1978.

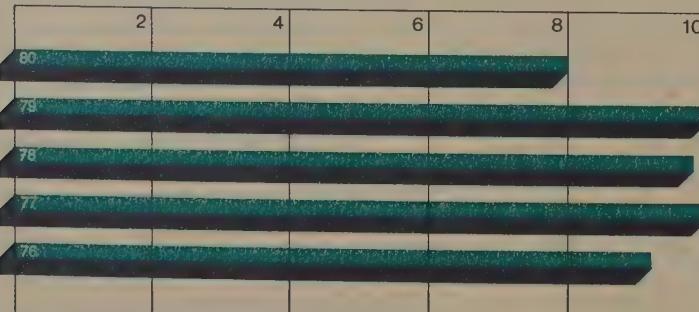
Income contribution from segments totaled \$64.9 million in 1980, \$75.7 million in 1979, and \$64.2 million in 1978. Three-year revenue and income results of Dravo's five operating segments, shown in the table on page 29 of this Annual Report, are discussed below.

Engineering Construction revenue increased 10 per cent in 1980 to \$464.8 million, reflecting a higher level of work in such areas as polymers, petroleum, petrochemicals, synthetic fuels and pulp and paper. Revenue declines were experienced on projects involving nuclear power generation facilities, both in the United States and abroad, and domestic cokemaking facilities for steel and chemical applications. 1979 revenue of \$424.1 million represented a nine-per cent decline from 1978 results, reflecting a lower level of work in essentially the same areas providing the 1980 gains.

Despite increased revenue in 1980, Engineering Construction's income contribution fell 83 per cent to \$5.4 million. The reduction is attributable to a number of factors, such as loss provisions on major long-term construction contracts, liquidation of unprofitable operations and accelerated research and development expenses for shale oil technology. An increase in 1979's income contribution over 1978, despite reduced revenue, was due mainly to Dravo's share in the final claim settlement on the New York City Water Tunnel project.

Manufacturing revenue increased \$69 million in 1980 to \$300.4 million. Marine equipment contributed 39 per cent of this increase despite a decrease in the number of vessel completions to 336 from 371. Product mix was largely responsible, with a shift in demand from hopper barges to the higher priced

RETURN ON AVERAGE INVESTED CAPITAL* (In percents)



*From continuing operations

tank barges. Materials handling and other equipment provided another 29 per cent of the increase, primarily through the McDowell-Wellman acquisition. The 1979 revenue increase over the prior year came from an increased level of marine completions.

Manufacturing's 46-per cent greater income contribution in 1980 was mainly attributable to a combination of higher revenues and improved profitability of marine work. A 35-per cent increase in 1979 income over 1978 resulted from increased revenues and the \$1.2-million gain from the sale of a manufacturing facility. The favorable trends in manufacturing revenue and income are expected to continue through improved cost performances in most lines of business.

Natural Resources' revenue and income bettered 1979 results by nine per cent and 30 per cent, respectively. Southern Industries, which accounts for two-thirds of Natural Resources' revenue, achieved an overall 10-per cent increase to \$154 million in 1980. Southern's income contribution, however, did not increase proportionately, due to increasing costs and weakening demand for many product lines. Aggregates Division's revenue and income decreased from 1979 levels, due principally to the depressed construction and paving markets. Dravo Lime's 1980 revenue rose 18 per cent to \$42.3 million on increased shipments, while its income contribution increased approximately \$5 million, or 82 per cent of the total Natural Resources gain for the year. The segment's income was again reduced by expenses associated with development of Carbon County Coal's mining operation and other potential Natural Resources opportunities.

Natural Resources' 1979 revenue and income bettered 1978 results by 31 per cent and 25 per cent, respectively. Southern Industries achieved improved results from shell and lime operations. The Aggregates Division achieved increased revenue from the acquisition of Criss & Shaver, while Dravo Lime's improved revenue and income results were attributable to higher contract lime shipments to electric utility customers.

Equipment's revenue and income contributions for 1980 fell \$11.1 million and \$2 million, respectively, marking the second successive year of decline. While a significant portion of the decrease was due to the phaseout and corresponding sell-off of inventory of the West Coast Cal-Ore operation, the remaining units continued to be adversely affected by the depressed coal and construction markets and attendant reduced capital spending because of high financing costs. Management has taken steps to reduce investment in inventory and minimize overhead expenses in an attempt to restore the segment to profitability in 1981.

Equipment's 1979 revenue and income fell sharply from 1978 because of lower capital spending by coal mining customers in Ohio, Pennsylvania and West Virginia, and by logging operators in the Pacific Northwest.

Transportation's 1980 revenue and income posted their third consecutive year of improvement, bettering 1979 results by 15 per cent and 47 per cent, respectively. Grain, unit tow coal and liquid petroleum products provided most of the revenue increase. The income improvement reflects a combination of the higher revenue and operating cost improvements. 1979 revenue and income were substantially above 1978 results, which had been severely impacted by winter weather. Shipments of grain, liquid petroleum products and lime provided the gains.

Interest expense decreased to \$16.6 million in 1980, due principally to the increased availability of cash flow from operations. Interest expense increased to \$17.6 million in 1979 from \$12.8 million in 1978, due to a combination of rising interest rates and a higher level of borrowings for working capital requirements.

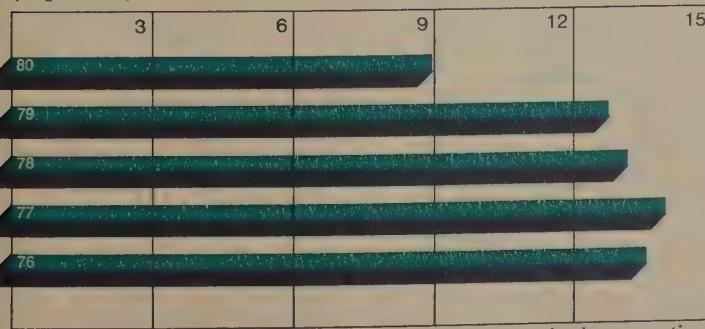
A discussion of the impact of inflation and changing prices on Dravo's performance is presented on pages 42 and 43 of this Annual Report.

PROPOSED MERGER

On February 18, 1981 an agreement was reached to merge Ryan-Walsh Stevedoring Company, Inc. with Dravo on the basis of the exchange of 18.825 shares of Dravo common stock for each outstanding share of Ryan-Walsh common stock. As of December 31, 1980 there were approximately 22,000 Ryan-Walsh common shares outstanding. The merger, which will be

RETURN ON AVERAGE SHAREHOLDER EQUITY*

(In percents)



accounted for as a pooling of interests, has been approved by the directors of both companies and is subject to approval by Ryan-Walsh shareholders.

CAPITAL EXPENDITURES

Additions to property, plant and equipment in 1980 totaled \$46.9 million, compared to \$49 million in 1979 and \$33.5 million in 1978. The 1980 expenditures include \$27.7 million for Natural Resources operations, principally by Southern Industries, for marine equipment and asphalt operations, continued improvements to the Kentucky lime facility and equipment employed in extraction operations. Other major expenditures during 1980 included \$2.5 million for development of our shale oil extraction capabilities, \$2.4 million for additions and improvements to Dravo Mechling's fleet and \$3.6 million for manufacturing facility improvements.

BACKLOG

At year-end 1980, backlog to be reported as revenue increased 10 per cent to \$1.42 billion, of which \$1.17 billion represented work yet to be performed. The 1980 backlog of revenue includes approximately \$300 million of assignments from foreign customers, as compared to \$350 million at year-end 1979. Backlog amounts by segment at year end compare as follows:

Backlog to be reported as revenue

(In millions)	1980	1979	1978
Engineering Construction	\$ 727	\$ 626	\$ 372
Manufacturing	366	335	284
Natural Resources	352	344	368
Intersegment Items	(28)	(19)	(13)
	\$1,417	\$1,286	\$1,011

Orders of our Natural Resources, Equipment and Transportation segments, other than long-term contracts, are not included in backlog since they are completed shortly after receipt. Year-end backlog statistics also do not include Dravo's share in contracts of unconsolidated affiliates, such as the long-term

coal supply contract of Carbon County Coal Company or the engineering construction activities of Dravo de Mexico, our Mexican affiliate.

COMMON STOCK MARKET PRICES

The principal market on which Dravo's common stock is traded is the New York Stock Exchange. The high and low common stock sales prices for each quarterly period in 1980 and 1979 as reported for New York Stock Exchange composite transactions and adjusted for the 3-for-2 split were:

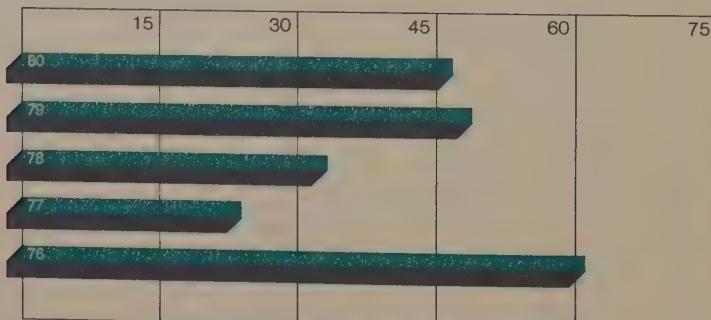
Quarter	1980		1979	
	High	Low	High	Low
First	\$25 3/4	\$19 3/4	\$19 7/8	\$16 1/2
Second	23 1/2	18 5/8	20 1/2	15 7/8
Third	29 1/4	23 1/8	21 7/8	19
Fourth	33	27 1/2	21	17

DIVIDENDS

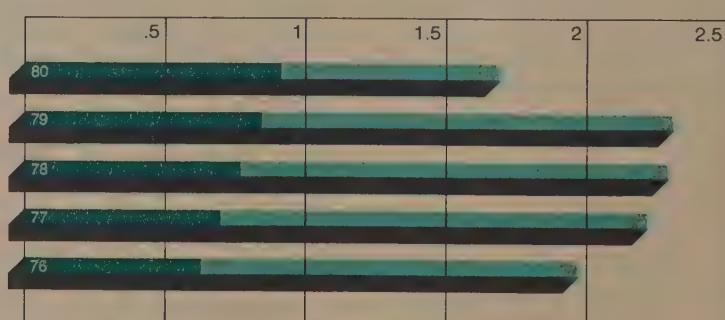
In January, 1980, after giving effect to the 3-for-2 stock split of record date February 4, 1981, the quarterly cash dividend was raised 6.2 per cent to 22 2/3 cents per share from 21 1/3 cents in 1979. Again in January, 1981, the dividend was increased 5.9 per cent to 24 cents, or 96 cents per share on an annual basis, marking Dravo's ninth consecutive year of dividend increases and the 161st quarter of uninterrupted dividend payments. Common dividends reflected a 51-per cent payment from 1980 earnings, compared with 36 per cent from 1979 earnings.

Total 1980 dividends, including \$406,000 declared on preference stock, amounted to \$11.4 million. Dividends paid in 1979 were \$10.6 million on approximately four per cent fewer shares outstanding.

CAPITAL EXPENDITURES (In millions)



EARNINGS PER SHARE* (In dollars)



■ Dividends per share
■ Reinvested earnings per share

*From continuing operations

Segment revenue and income contribution

<i>(In millions)</i>	1980	1979	1978
Revenue:			
Engineering Construction	\$ 464.8	\$424.1	\$463.8
Manufacturing	300.4	231.4	196.2
Natural Resources	233.6	214.5	164.1
Equipment	61.2	72.3	89.5
Transportation	76.7	66.5	56.1
Intersegment items	(22.8)	(16.5)	(10.7)
Total revenue	\$1,113.9	\$992.3	\$959.0
Income contribution:			
Engineering Construction	\$ 5.4	\$ 31.0	\$ 29.1
Manufacturing	23.6	16.2	12.0
Natural Resources	26.7	20.6	16.5
Equipment	(1.1)	.9	3.5
Transportation	10.3	7.0	3.1
From segments	64.9	75.7	64.2
Interest expense	(16.6)	(17.6)	(12.8)
Intersegment and corporate items	(12.4)	(10.7)	(9.4)
Total pretax income	\$ 35.9	\$ 47.4	\$ 42.0

SEGMENTS

Dravo operates within five segments—Engineering Construction, Manufacturing, Natural Resources, Equipment and Transportation. The nature of the business and products and the current activity of each segment are described on pages 15 through 23. Management's analysis of revenue and earnings, beginning on page 26, includes comments on segment operating results.

Revenue shown by segment includes both sales to non-affiliated customers, as reported on the company's consolidated statement of income, and intersegment sales, as detailed at the right, which are principally at competitive market prices.

Intersegment items

<i>(In millions)</i>	1980	1979	1978
Engineering Construction	\$ 3.3	\$ 2.8	\$ 1.2
Manufacturing	10.9	7.0	4.3
Natural Resources	.3	.6	—
Equipment	4.1	3.1	3.3
Transportation	4.2	3.0	1.9
	\$22.8	\$16.5	\$10.7

Other segment information

(In millions)	Assets Employed As of December 31			Capital Expenditures			Depreciation and Amortization		
	1980	1979	1978	1980	1979	1978	1980	1979	1978
Engineering Construction	\$189.3	\$152.8	\$112.3	\$11.5	\$ 9.0	\$ 5.4	\$4.9	\$ 3.4	\$ 3.3
Manufacturing	101.9	92.4	91.2	4.8	3.9	6.4	3.3	3.1	2.7
Natural Resources	238.3	212.5	180.6	27.7	31.4	18.8	15.1	13.9	11.4
Equipment	39.0	58.1	53.2	1.1	1.6	1.8	.7	.7	.8
Transportation	78.1	74.4	72.6	2.4	4.0	1.3	3.8	3.8	4.1
Intersegment and corporate items	38.1	25.9	32.3	(.6)	(.9)	(.2)	.6	.6	.4
Total	\$684.7	\$616.1	\$542.2	\$46.9	\$ 49.0	\$ 33.5	\$28.4	\$ 25.5	\$22.7

Operations by geographic areas

(In millions)	Revenue			Income Contribution			Assets Employed As of December 31		
	1980	1979	1978	1980	1979	1978	1980	1979	1978
United States	\$1,045.2	\$947.6	\$905.8	\$ 66.0	\$ 74.3	\$ 59.3	\$608.4	\$555.2	\$475.6
Foreign	68.7	44.7	53.2	(1.4)	1.3	5.4	37.7	22.3	22.1
Corporate items	—	—	—	(28.7)	(28.2)	(22.7)	38.6	38.6	44.5
Total	\$1,113.9	\$992.3	\$959.0	\$ 35.9	\$ 47.4	\$ 42.0	\$684.7	\$616.1	\$542.2

OPERATIONS BY GEOGRAPHIC AREAS

Dravo conducts business on a worldwide scale by exporting from the United States principally its engineering, technology and construction management services, fabricated and manufactured products, and constructor's equipment; by construction operations in foreign areas; and by operations of subsidiary companies in foreign areas. The detail of revenue produced from business activities conducted in approximately 30 foreign nations, as well as exports to nonaffiliated customers, is presented at the right:

	1980	1979	1978
Foreign operations	\$ 68.7	\$ 44.7	\$ 53.2
Exports to nonaffiliated customers	104.7	48.5	41.0
Total	\$173.4	\$ 93.2	\$ 94.2

CONSOLIDATED STATEMENT OF INCOME

(In thousands, except per share)

Year ended December 31	1980	1979	1978
Revenue			
Construction and product sales	\$ 770,228	\$740,326	\$771,258
Service sales	343,697	252,006	187,786
	1,113,925	992,332	959,044
Cost of construction, products and services			
Construction and product costs	656,688	624,356	678,779
Service costs	290,685	206,439	134,790
	947,373	830,795	813,569
Gross profit			
Selling, administrative and general expenses	166,552	161,537	145,475
	115,934	101,306	92,917
Income from operations	50,618	60,231	52,558
Other income (expense):			
Equity in operations of unconsolidated affiliates	(2,342)	1,583	(615)
Dividend and interest income	4,269	3,163	2,821
Interest expense	(16,608)	(17,585)	(12,757)
Net other income (expense)	(14,681)	(12,839)	(10,551)
Income before taxes	35,937	47,392	42,007
Provision for income taxes	14,375	19,212	16,790
Net income	\$ 21,562	\$ 28,180	\$ 25,217
Earnings per share:			
Primary	\$ 1.69	\$ 2.31	\$ 2.29
Fully diluted	1.65	2.25	2.19

CONSOLIDATED STATEMENT OF RETAINED EARNINGS

(In thousands, except per share)

Year ended December 31	1980	1979	1978
Retained earnings at beginning of year	\$176,627	\$159,043	\$142,556
Net income	21,562	28,180	25,217
Acquisitions accounted for as poolings	2,441	—	—
	200,630	187,223	167,773
	Per Share		
Dividends declared	1980	1979	1978
Series A preference stock	\$ —	\$ —	\$.55
Series B preference stock	2.475	2.475	2.475
Common stock	.91	.85	.77
Southern Industries common, prior to merger			11,035
			8,963
			—
			1,223
			2,226
			11,441
			10,596
			8,730
Retained earnings at end of year	\$189,189	\$176,627	\$159,043

Earnings per share and common dividends declared have been restated for the 3-for-2 stock split of record date February 4, 1981. Earnings before the split were \$2.54, \$3.47 and \$3.43, and dividends paid on shares prior to the split were \$1.36, \$1.28 and \$1.16, respectively.

The accompanying notes are an integral part of these financial statements.

CONSOLIDATED BALANCE SHEET
(In thousands)

December 31	1980	1979
ASSETS		
Current assets:		
Cash	\$ 13,266	\$ 18,526
Marketable securities—at cost (approximates market)	15,638	2,700
Accounts and notes receivable	234,655	197,742
Inventories and costs on contracts in progress, net of billings of \$190.8 million in 1980 and \$94.6 million in 1979	97,265	88,426
Advances to and equity in joint ventures	13,121	9,886
Other current assets	8,628	6,801
Total current assets	382,573	324,081
Investments in and advances to unconsolidated affiliates	15,850	16,422
Drawings, patents, and other intangible assets	2,184	3,302
Other assets	11,681	16,448
Property, plant and equipment:		
Land	24,391	23,960
Mine development	6,053	4,785
Buildings and improvements	57,103	50,976
Floating equipment	142,402	133,155
Machinery and other equipment	224,284	204,787
	454,233	417,663
Less accumulated depreciation and amortization	181,779	161,832
Total property, plant and equipment	272,454	255,831
	\$684,742	\$616,084

The accompanying notes are an integral part of these financial statements.

December 31	1980	1979
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Notes payable and current portion of long-term notes	\$ 4,254	\$ 14,042
Accounts payable—trade	113,169	88,287
Wages and salaries, including vacations	20,832	18,504
Income taxes	22,346	16,807
Accrued retirement contributions	11,440	12,509
Advance payments	26,908	9,150
Other current liabilities	43,425	32,950
Total current liabilities	242,374	192,249
Long-term notes	87,958	92,019
Deferred income taxes	47,929	38,065
Other liabilities	7,966	6,323
Deferred revenue from future mineral production	52,815	55,437
Shareholders' equity:		
Preference stock, par value \$1, authorized 1,997,185 and 2,000,000 shares; issued 162,701 and 165,516 shares of \$2.475 cumulative convertible Series B (entitled in liquidation to \$8.9 million and \$9.1 million)	163	165
Common stock, par value \$1, authorized 20,000,000 shares; issued 12,556,095 and 12,146,394 shares	12,556	12,146
Other capital	47,037	47,010
Retained earnings	189,189	176,627
Treasury stock at cost; common shares: 86,738 and 122,729	(1,504)	(2,145)
Notes from employees for common stock purchases	(1,741)	(1,812)
Total shareholders' equity	245,700	231,991
	\$684,742	\$616,084

CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION

(In thousands)

Year ended December 31	1980	1979	1978
Source of funds:			
Net income	\$ 21,562	\$ 28,180	\$ 25,217
Charges (credits) to income not involving funds:			
Depreciation and amortization	28,374	25,508	22,651
Deferred taxes and other expenses	11,507	6,048	9,032
Equity in operations of unconsolidated affiliates	2,342	(1,583)	615
From operations	63,785	58,153	57,515
Book value of capital assets sold	4,258	5,397	2,303
Proceeds from long-term notes	317	32,619	20,763
Common stock issued	394	4,145	23,097
Other	6,752	—	—
	75,506	100,314	103,678
Application of funds:			
Purchase of property, plant and equipment	45,785	38,039	30,561
Reduction of long-term notes	4,378	12,449	5,732
Increase in investment in and advances to unconsolidated affiliates	1,770	2,220	2,074
Reduction of deferred revenue from future mineral production	2,622	2,388	2,175
Dividends	11,441	10,596	8,730
Non-current assets received from purchased companies:			
Property, plant and equipment	1,143	13,923	—
Drawings, patents and other assets	—	689	—
Assumption of long-term notes	—	(61)	—
Allocation of acquired net assets of Round Rock Lime Company	—	(4,558)	4,558
Other	—	4,017	2,453
	67,139	79,702	56,283
Change in working capital	\$ 8,367	\$ 20,612	\$ 47,395
Increase (decrease) in working capital:			
Cash and marketable securities	\$ 7,678	\$ 1,096	\$ (5,409)
Accounts and notes receivable	36,913	22,428	32,710
Inventories and costs on contracts in progress, net of billings	8,839	17,192	18,729
Advances to and equity in joint ventures	3,235	4,537	5,139
Notes payable	9,788	(4,818)	(2,905)
Accounts payable	(24,882)	3,620	8,708
Income taxes	(5,539)	(4,464)	3,147
Accrued retirement contributions	1,069	(1,277)	(2,274)
Wages and salaries, including vacations	(2,328)	(4,527)	(2,577)
Advance payments	(17,758)	(9,150)	—
Other	(8,648)	(4,025)	(7,873)
	\$ 8,367	\$ 20,612	\$ 47,395

The accompanying notes are an integral part of these financial statements.

NOTES TO FINANCIAL STATEMENTS

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of consolidation. The consolidated financial statements include the accounts of all wholly-owned subsidiaries except Dravo Leasing Company and four real estate companies, which are not significant subsidiaries. The unconsolidated subsidiaries and qualifying affiliates are included in the statements on an equity basis.

Income recognition. Income is recognized on fixed-price, long-term contracts, including those performed by joint ventures, in the period of physical completion and on reimbursable fee-type contracts as costs are incurred; however, provision is made currently for anticipated losses. Income is recognized on manufactured products as each unit is delivered. Manufacturing profit on sales to Dravo Leasing Company, an unconsolidated subsidiary, is recognized upon delivery on finance-type leases. On operating-type leases, manufacturing profit is recognized on a straight-line basis over estimated rental life.

Inventories. Inventories are valued at cost or market, whichever is lower. For manufacturing inventories, including finished goods, work in process, materials and manufacturing contracts in progress, cost is determined principally on a last-in, first-out (LIFO) basis; other inventories, including fabricated components shipped, repair parts and natural resource inventories, are principally carried at actual or current standard cost on a first-in, first-out (FIFO) basis. The cost of products produced includes raw materials, direct labor and operating overhead. For finished goods consisting of contractors' equipment held for rental or sale, costs are determined on an identified unit basis, less estimated reductions attributable to rental service. Costs of engineering construction contracts in progress are stated at actual direct cost, including overhead at rates approximating actual cost.

Current accounts. In accordance with industry practice, current assets and liabilities include amounts related to long-term contracts and joint ventures which have cycles extending beyond one year.

Property, plant, equipment and depreciation. Property, plant and equipment are stated at cost. The cost of buildings, equipment and machinery is depreciated over estimated useful lives on a straight-line basis except for long-lived assets employed at the Kentucky mining and lime processing facility, which are depreciated on a unit of production method. For income tax purposes, depreciation is calculated principally on accelerated bases. Expenditures for maintenance and repairs which do not materially extend the life of assets are included in operating expense. The asset cost and accumulated depreciation are removed from the accounts for assets sold or retired, and any resulting gain or loss is included in income.

Intangible assets. Intangible assets, including purchased patents, drawings, agreements and goodwill, are amortized over their estimated useful lives of from five to ten years.

Income taxes. Deferred income taxes are provided for timing differences between financial and tax income. Current income tax liabilities include deferred taxes related to current assets.

Deferred taxes recognize timing differences, principally with respect to depreciation and contract accounting. Deferred tax provisions are made for foreign subsidiaries' undistributed earnings which are not expected to be reinvested. Investment tax credits are recognized currently by reduction of the provision for income taxes, limited to estimated realizable amounts.

ACQUISITIONS AND MERGER

In 1980, the engineering and construction firms of Livsey & Company, Inc., Spartan Mechanical Contractors, Inc., Chariot Corporation and Weyher Construction Company were acquired for common stock and were accounted for as poolings of interests. Also in 1980, the bulk materials handling unit and research center of McDowell-Wellman Company were acquired for cash. None of these acquisitions had a material effect on the financial statements.

Early in 1981, selected assets of McDonough Corporation's former Ohio River Sand & Gravel Division were purchased for cash, and a consulting engineering firm, Paper Industry Engineers, Inc., was acquired for stock.

In 1979, Southern Industries Corporation was merged with Dravo upon the exchange of 3,004,705 shares of Dravo common stock for all outstanding common shares of Southern Industries. This exchange was on the basis of .9828 Dravo share for each Southern Industries share. The merger was accounted for as a pooling of interests. Dravo financial information, excluding dividends per share, has been restated to include Southern Industries. The Criss & Shaver group of companies, a West Virginia producer of aggregates and ready-mixed concrete, was also acquired in 1979. The acquisition, involving cash and 199,336 common shares, was accounted for as a purchase.

ACCOUNTS AND NOTES RECEIVABLE

Receivables at December 31 include:

(In thousands)	1980	1979
Trade receivables, net of allowance for uncollectibles of \$1.3 million in 1980 and \$1.4 million in 1979	\$ 95,188	\$ 89,769
Engineering construction contract receivables, net of allowance for uncollectibles of \$137,000 in 1980 and \$215,000 in 1979	119,104	90,215
Receivables, unconsolidated affiliates	7,900	6,462
Retainage:		
Due after contract completion	21,179	13,976
Deduct: Billings on contracts in progress	8,716	2,680
	12,463	11,296
	\$234,655	\$197,742

Net retainage includes \$4.9 million in 1980 and \$2.1 million in 1979 estimated to be collectible after one year.

INVENTORIES AND CONTRACTS IN PROGRESS

Inventories and inventoried costs of engineering construction contracts at December 31 are classified as:

(In thousands)	1980	1979
Inventories:		
Finished goods	\$ 44,737	\$ 47,580
Work in process	3,660	3,474
Materials and supplies	26,397	23,741
Manufacturing contracts in progress	75,022	51,057
	149,816	125,852
Inventoried costs of engineering construction contracts	138,231	57,134
	288,047	182,986
Deduct: Billings on contracts in progress		
Manufacturing	44,301	48,049
Engineering construction	146,481	46,511
	190,782	94,560
Net inventories	\$ 97,265	\$ 88,426

Finished goods inventories of contractors' equipment held for resale were \$18.9 million in 1980 and \$30.2 million in 1979 including units that have been used in rental service which had a carrying value of \$4 million in 1980 and \$4.7 million in 1979.

The inventories related to manufacturing activities valued on a LIFO basis, principally contracts in progress, amounted to \$35.4 million in 1980 and \$22.6 million in 1979. On a FIFO basis, which approximates replacement cost, these same inventories would be \$65.9 million and \$49.3 million. Other inventories, which are carried on a FIFO basis, were \$95.5 million and \$73 million at year-end 1980 and 1979.

Amounts are removed from inventory on the same basis as their carrying value as described in the "Summary of Significant Accounting Policies."

There are no significant claims (or costs for which claims are asserted) included in contract costs at December 31, 1980 or 1979.

INVESTMENTS IN AND ADVANCES TO UNCONSOLIDATED AFFILIATES

The principal unconsolidated affiliate is Dravo Leasing Company, a wholly-owned finance subsidiary. Dravo's investment in Dravo Leasing Company totaled \$9 million at December 31, 1980.

Dravo also has an investment in Carbon County Coal Company, a partnership formed to mine and market coal from Wyoming reserves. The investment, which amounted to \$689,000 at December 31, 1980, is accounted for on the equity basis. The company anticipates an eventual investment of \$8 million, in addition to \$25 million provided by an advance to the partnership by an institutional lender. This advance will be repaid out of Dravo's share of the facility's operating income and is supported by a Dravo commitment to ensure repayment.

Investments of \$6.5 million represent interests in foreign companies. These include Dravotec, S.p.A. which was formed in 1979 to increase and combine equity participation in several Italian affiliates into a single engineering, construction and manufacturing organization.

NOTES PAYABLE

Notes payable at December 31 include the following:

(In thousands)	1980	1979
Short-term:		
Notes payable	\$ —	\$ 8,146
Current portion of long-term notes	3,170	4,613
Current portion of obligations under capital leases	1,084	1,283
	\$ 4,254	\$14,042
Long-term:		
7% cumulative income debentures, payable through 1982	\$ 4,230	\$ 4,755
7 5/8% notes, payable through 1982	2,600	3,900
7 3/4% bonds, payable through 1991	2,470	2,700
8% bonds, payable through 2002	9,990	10,454
8.15% bonds, payable through 1997	3,455	3,665
9.95% notes, payable 1982-1994	34,000	34,000
10% notes, payable in 1983 and 1984	10,000	10,000
9 1/4%-10 3/4% floating rate notes, payable in 1983 and 1984	15,000	15,000
Other notes, payable through 1998	3,585	5,188
Obligations under capital leases	6,882	8,253
	92,212	97,915
Deduct: Current portion of notes and leases	4,254	5,896
	\$87,958	\$92,019

The 8% bonds of Dravo Mechling Corporation and the 8.15% bonds of Southern Industries Corporation are repayable semi-annually and guaranteed by the U. S. Maritime Administration.

The 9.95% unsecured promissory notes were issued by Southern Industries Corporation. The terms of the note agreement require quarterly interest payments and, beginning 1982 through 1994, annual principal repayments of \$2.4 million. The agreement provides for optional prepayments beginning in 1984 within certain limits. The proceeds of this note were used to prepay a \$27-million 9 3/4% note and a \$6.5-million demand note. Restrictive covenants in the loan agreement include requirements for Southern Industries to maintain a certain working capital level and limit the incurrence of debt and lease obligations, the payment of dividends to Dravo, the sale of assets or stock of Southern Industries subsidiaries and the creation of liens on Southern Industries assets.

The 10% and 9 1/4% notes were issued by Dravo Corporation under a medium-term loan agreement. The loan includes \$10 million at a 10% fixed-interest rate repayable in two installments, in 1983 and 1984, and \$15 million at a floating rate of 108% of prime, limited to a maximum rate of 10 3/4% and a minimum rate of 9 1/4%, repayable in three equal consecutive semi-annual installments commencing October, 1983. The loan is unsecured and can be prepaid after one year at varying premiums. Restrictive covenants in the loan agreement include requirements for minimum tangible net worth and limitation on additional debt and lease obligations, substantial sales of assets, cumulative capital expenditures and cumulative dividends.

Net book value of property pledged under certain notes and leases was \$26.8 million at December 31, 1980.

Amounts payable on note and lease obligations due after 1981 are: 1982, \$9.7 million; 1983, \$14.2 million; 1984, \$19

million; 1985, \$3.9 million; 1986, \$4.1 million; and after 1986, \$37.1 million.

Line-of-credit agreements have been established which are on a fee basis and have no formal requirements for compensating balances. At December 31, 1980 and 1979, the unused credit lines totaled \$100.4 million and \$97.3 million, respectively.

DEFERRED REVENUE FROM FUTURE MINERAL PRODUCTION

Dravo Lime Company has conveyed mineral reserves and assigned proceeds of lime sales contracts for advance production payments of \$60 million, of which \$52.8 million remains as of December 31, 1980. Repayment with interest at 9.58% is scheduled semi-annually through 1991. During this period the related contract revenues are expected to exceed \$300 million.

SHAREHOLDERS' EQUITY

On January 22, 1981, the Board of Directors authorized a 3-for-2 stock split in the form of a 50-per cent stock dividend to shareholders of record February 4, 1981. The par value of common stock issued increased by \$4.2 million with an equal reduction of other capital, and both the number of common shares issued and treasury shares increased 50 per cent. The stock split has been reflected retroactively in the analysis of shareholders' equity accounts set forth below:

In 1980 Spartan Mechanical Contractors, Inc., Weyher Construction Company and Chariot Corporation were acquired for previously unissued stock of 71,625, 318,736 and 2,775 shares, respectively. Also in 1980, Livsey & Company, Inc. was acquired for 15,000 treasury shares. All of the above acquisitions were accounted for as poolings of interests.

The undistributed earnings of unconsolidated subsidiaries included in shareholders' equity totaled \$1.1 million in 1980.

RETIREMENT PLAN

Current pension costs are funded currently, and prior service pension costs are funded principally over 30-year periods. Under the company's retirement plan for salary and hourly employees, the expenses were \$11.2 million in 1980, \$12.2 million in 1979 and \$11 million in 1978. A change during 1980 in the actuarial assumptions used in computing pension costs had the effect of increasing net income for the year by \$1.6 million.

As of January 1, 1980, the most recent actuarial date, the actuarial present values of accumulated vested and nonvested plan benefits under defined benefit plans were \$65.2 million and \$6.8 million, respectively, and net assets available for benefits, at market value, were \$87.1 million. The weighted average assumed rate of return used in determining the actuarial present value of accumulated plan benefits was 10.4 %. For

(In thousands)	Preference Stock	Common Stock	Other Capital	Treasury Shares	Employee Notes
Balance, January 1, 1978	\$192	\$10,455	\$21,432	\$ (2,441)	\$ (1,375)
Common shares issued through:					
New stock issue (1,200,000)		1,200	21,039		
Retirement of Series A preference stock (80,451)	(27)	80	(53)		
Pooled company pre-merger warrants and stock options (151,095)		151	707		
Common stock options exercised (85,905)				1,055	
Sales to employees (37,759)				692	(692)
Shares purchased (100,195)				(1,930)	
Payments on notes				723	
Balance, December 31, 1978	165	11,886	43,125	(2,624)	(1,344)
Common shares issued through:					
Criss & Shaver purchase (199,336)		199	3,563		
Pooled company pre-merger warrants and stock options (61,287)		61	322		
Common stock options exercised (63,270) and management awards (313)				943	
Sales to employees (75,558)				1,349	(1,349)
Shares purchased (100,410)				(1,813)	
Payments on notes				881	
Balance, December 31, 1979	165	12,146	47,010	(2,145)	(1,812)
Common shares issued through:					
Business acquisitions (408,136)		393	(221)	298	
Retirement of Series B preference stock (9,053)	(2)	9	(7)		
Stock appreciation rights exercised (8,287)		8	214		
Gain on sale of treasury stock				41	
Common stock options exercised (17,988) and management awards (279)				300	
Sales to employees (36,091)				746	(746)
Shares purchased (33,367)				(703)	
Payments on notes				817	
Balance, December 31, 1980	\$163	\$12,556	\$47,037	\$ (1,504)	\$ (1,741)

cost determination and funding purposes in 1980, a more conservative 8% weighted average rate of return was assumed.

COMMITMENTS AND CONTINGENT LIABILITIES

Total rental expenses for 1980, 1979 and 1978, excluding short-term rentals associated with construction contracts, were \$36.6 million, \$33 million and \$25.8 million, respectively. The minimum future rentals under noncancelable operating leases and future rental receipts from a sublease to a third party as of December 31, 1980 were:

(In thousands)	
1981	\$14,392
1982	13,934
1983	10,744
1984	7,792
1985	2,988
After 1985	10,748
Total minimum payments required	60,598
Less: Sublease rental receipts	9,530
	\$51,068

Gibbs & Hill, Inc., a wholly-owned subsidiary, has a minority interest in an Iranian-registered affiliate which has performed engineering design and construction management services for the installation of electric transmission lines and substations in Iran. Receivables due from the affiliate total \$3.4 million. In addition to the receivables, Gibbs & Hill has a contingent liability under letters of credit issued by a United States bank for \$2.6 million. Negotiations are in process between the affiliate's Iranian nationals and the government of Iran for payment for the work performed.

STOCK OPTIONS AND STOCK APPRECIATION RIGHTS

The following summary shows the changes in the outstanding options for common stock and stock appreciation rights after giving effect to the 3-for-2 stock split:

	Stock Options (1973 Plan)	Stock Appreciation Rights (1978 Plan)	Price
Outstanding, January 1, 1980	101,175	144,000	\$15.17-\$20.54
Granted during year	—	110,700	\$19.00
Exercised during year	(17,988)	(77,250)	\$15.17-\$20.54
Forfeited during year	(1,125)	—	\$20.13
Outstanding, December 31, 1980	82,062	177,450	\$15.17-\$20.54

Of the options outstanding under the 1973 Plan, 82,062 shares were exercisable at December 31, 1980. The exercise of options does not necessitate a charge or credit to income.

Under the 1978 Plan for executives and key employees, options may be granted either alone or in tandem with related stock appreciation rights, or stock appreciation rights may be granted separately. The price of stock and the basis of stock appreciation rights so granted is the fair market value on the date of grant. Any incremental value of stock appreciation rights granted is recognized as expense; \$1.6 million was accrued in 1980, \$213,000 in 1979 and \$0 in 1978.

At December 31, 1980 there were 58,680 shares available for granting common stock options under the 1973 Plan and 120,300 shares available for granting common stock options and/or stock appreciation rights under the 1978 Plan.

INTEREST CAPITALIZATION

In 1979 the company adopted a policy of capitalizing interest in accordance with Statement 34 of the Financial Accounting Standards Board. Amounts capitalized in 1980 and 1979 were not material.

INCOME TAXES

The components of income (loss) before income tax expense (benefit) as domestic and foreign for the year ended December 31 are:

(In thousands)	1980	1979	1978
United States	\$42,020	\$48,595	\$36,830
Foreign	(6,083)	(1,203)	5,177
Total	\$35,937	\$47,392	\$42,007

The provisions for income taxes at December 31 are:

(In thousands)	1980	1979	1978
Current			
Federal	\$11,153	\$ 8,461	\$ 2,714
Foreign	1,986	768	3,412
State	3,032	3,832	3,565
	16,171	13,061	9,691
Deferred			
Federal	(2,233)	6,486	7,211
Foreign	437	(335)	(112)
	(1,796)	6,151	7,099
Total	\$14,375	\$19,212	\$16,790

Deferred tax expense results from timing differences in the recognition of revenue and expense for tax and financial statement purposes. The sources of these differences and the tax effect of each were:

(In thousands)	1980	1979	1978
Excess of tax over book depreciation	\$2,617	\$2,389	\$6,253
Sales recognized on installment basis for taxes	(841)	860	1,148
Financial-type leases with operating lease tax basis	(179)	(164)	(243)
Tax accrued on undistributed earnings of subsidiaries	330	34	579
Tax on Domestic International Sales Corporation (DISC) fiscal year timing differences	(1,349)	(275)	(789)
Differences in book and tax basis for contracts	(8,185)	1,405	(1,855)
Expenses allowable for taxes when paid	5,304	1,109	1,080
Investment credit carryforward	(3,282)	(1,133)	(17)
Foreign tax credit carryforward	3,754	1,732	(63)
Other	35	194	1,006
	\$1,796	\$6,151	\$7,099

The following items account for the difference between the United States federal income tax rate of 46% (48% for 1978) and the effective tax rate for 1980 of 40%, 1979 of 40.5% and 1978 of 40%:

Percent of pre-tax income	1980	1979	1978
Increases (reductions) in taxes resulting from:			
Tax on undistributed foreign earnings in excess of the U. S. rate	0.7%	5.2%	1.2%
Income of DISC not subject to tax	(2.8)	(0.3)	(0.2)
Tax effect of percentage depletion	(4.5)	(3.3)	(3.7)
Investment tax credits	(12.8)	(16.0)	(13.3)
State income tax net of federal benefit	4.6	4.4	4.4
Other items	8.8	4.5	3.6
	(6.0)%	(5.5)%	(8.0)%

Investment credits included in the provision for income taxes were \$4.6 million in 1980, \$7.6 million in 1979 and \$5.6 million in 1978. At December 31, 1980, tax benefits of \$6.4 million for investment credits expiring in 1984 and later have been recognized as a reduction of deferred tax liabilities. Foreign tax credits claimed of \$3.2 million are included in deferred tax liabilities pending final determination of a contract tax issue. Income taxes have not been provided for accumulated DISC income of \$9 million at December 31, 1980, because it is the intention of management to reinvest this income in qualified assets. Current income tax liabilities include deferred benefits of \$5.9 million in 1980 and deferred taxes of \$5.7 million in 1979.

EARNINGS PER SHARE

Earnings per share are based on net income less preference dividends declared in the year, divided by the weighted average of the sum of common shares outstanding during the year and the common share equivalents. Fully diluted earnings per share assumes conversion of the issued preference shares.

SEGMENT REPORTING

Information about the company's business segments and geographical areas of operation is provided on pages 29 and 30 of this report. The financial data and segment descriptions on these pages are incorporated by reference in these notes.

Income contribution by segment or geographical area is total revenue less operating expenses, excluding: general corporate expenses, interest expense, interest income, income on sales between segments or geographical areas, income taxes and net earnings or losses of nonoperating subsidiaries including Dravo Leasing Company.

Tangible and intangible assets identified to a segment or geographical area, including an allocation of those that are jointly used, represent the assets employed in the operation of each segment. Cash, marketable securities, and other assets that are controlled and held for general corporate needs are included as corporate items.

FOREIGN EXCHANGE ADJUSTMENTS

Foreign exchange expense adjustments, net of gains, were \$767,000 in 1980, \$279,000 in 1979 and \$478,000 in 1978, all of which occurred within the respective years.

RESEARCH AND DEVELOPMENT

Total research and development expense charged against income amounted to \$4.4 million in 1980 but was immaterial in 1979 and 1978. A major portion of research and development expense was attributable to the activity of Dravo Wellman's Cleveland research center, which has provided Dravo with additional technology in oil shale retorting and has increased the commitment to extraction of oil from shale and tar sands.

INTERIM FINANCIAL INFORMATION (UNAUDITED)

(In millions, except earnings per share)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
1980				
Revenue	\$210.6	\$237.7	\$275.5	\$390.1
Gross profit	32.8	39.0	42.0	52.8
Net income	2.1	5.2	5.7	8.6
Earnings per share	.17	.42	.45	.65
1979				
Revenue	\$187.4	\$244.8	\$229.5	\$330.6
Gross profit	33.7	41.5	38.3	48.0
Net income	4.5	8.0	5.0	10.7
Earnings per share	.37	.66	.40	.88

MANAGEMENT'S REPORT

The financial statements and other financial information included in this report are the responsibility of management. The statements have been prepared in conformity with generally accepted accounting principles and, in management's best judgment, fairly present Dravo's financial position and the results of operations.

Management maintains a sound system of internal control aimed at ensuring effective and efficient utilization of the company's assets, the accuracy and integrity of its financial records and fair reporting of its financial position and results of operations. The company applies high standards in selection, training and development of financial personnel, supports a broad program of internal audits, including international activities, and maintains a system of financial policies and guidelines to assure that operations comply with applicable laws and are conducted in conformity with the company's commitment to a high standard of business conduct.

The Board of Directors fulfills its responsibility for the company's financial statements through an Audit Committee consisting entirely of outside directors. The Audit Committee meets periodically with company management, internal auditors and independent public accountants to ensure that each performs its respective responsibilities in an effective manner. The internal auditors and independent public accountants have free and independent access to the committee to discuss the results of their audit work and their opinions on the adequacy of internal financial controls and the quality of financial reporting.

The company's financial statements are audited by the independent public accountants, Main Hurdman & Cranstoun, who review internal controls, test accounting records, and perform such other auditing procedures as required by generally accepted auditing standards; their activities are coordinated with corporate internal audit programs.

ACCOUNTANTS' REPORT

Main Hurdman & Cranstoun
certified public accountants

The Shareholders, Dravo Corporation

We have examined the consolidated balance sheet of Dravo Corporation and subsidiaries as of December 31, 1980 and 1979, and the related consolidated statements of income, retained earnings, and changes in financial position for each of the three years in the period ended December 31, 1980. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, such financial statements present fairly the financial position of Dravo Corporation and subsidiaries at December 31, 1980 and 1979, and the results of their operations and the changes in their financial position for each of the three years in the period ended December 31, 1980, in conformity with generally accepted accounting principles applied on a consistent basis.

Main Hurdman & Cranstoun

Pittsburgh, Pennsylvania
February 5, 1981

FIVE-YEAR SUMMARY

(Dollars in millions,
except per share)

	1980	1979	1978	1977	1976
Revenue	\$1,113.9	\$ 992.3	\$ 959.0	\$ 946.0	\$ 811.9
Gross profit	166.6	161.5	145.5	120.3	106.1
Interest expense	16.6	17.6	12.8	11.0	10.3
Income from continuing operations before					
provisions for income taxes	\$ 35.9	\$ 47.4	\$ 42.0	\$ 38.0	\$ 32.6
Taxes on income	14.3	19.2	16.8	14.8	12.4
Income from continuing operations	21.6	28.2	25.2	23.2	20.3
Discontinued operations and extraordinary item,					
net of income taxes	—	—	—	(5.7)	(.2)
Net income	21.6	28.2	25.2	17.5	20.1
Dividends declared	11.4	10.6	8.7	7.8	7.1
Per common share					
Income from continuing operations	\$ 1.69	\$ 2.31	\$ 2.29	\$ 2.20	\$ 1.97
Discontinued operations and extraordinary item	—	—	—	(.55)	(.02)
Net earnings	1.69	2.31	2.29	1.65	1.95
Dividends declared	.91	.85	.77	.70	.63
Book value	19.13	18.69	17.27	15.74	14.84
Billings for work performed	\$1,244.9	\$1,014.4	\$ 917.8	\$ 849.5	\$ 829.4
Backlog—to be reported as revenue	\$1,417.0	\$1,286.0	\$1,011.0	\$1,032.0	\$1,117.0
— to be performed	1,173.0	1,173.0	921.0	900.0	889.0
Total assets	\$ 684.7	\$ 616.1	\$ 542.2	\$ 478.6	\$ 450.4
Working capital	140.2	131.8	111.2	63.8	28.5
Long-term obligations	140.8	147.5	129.6	116.8	99.9
Shareholders' equity	245.7	232.0	210.3	170.8	161.3
Property, plant and equipment					
Expenditures	\$ 46.9	\$ 49.0	\$ 33.5	\$ 24.2	\$ 61.2
Cost	454.2	417.7	383.2	360.8	350.8
Net book value	272.5	255.8	233.8	227.1	229.7
Depreciation	27.1	24.5	21.6	19.7	17.6
Shareholders at year end	8,604	9,068	9,314	8,941	8,952
Employees at year end	14,158	14,409	13,898	13,264	15,283

Information shown per common share has been restated for the 3-for-2 stock split of record date February 4, 1981.

All amounts except dividends per share have been restated for the 1979 merger with Southern Industries. Operations discontinued by Southern Industries in 1976 and 1977, prior to the merger, were engaged in the sale and lease of construction equipment, phosphate mining, and industrial and hardware supply.

SUPPLEMENTAL INFORMATION

THE EFFECTS OF CHANGING PRICES ON DRAVO

Entering the 1980's, inflation remains a serious problem to the U.S. economy. The following financial information generally summarizes the effects of changing prices on Dravo's operations as prescribed by the Financial Accounting Standards Board (FASB).

This supplement contains data which is highly subjective and experimental in nature. Thus, caution is advised in comparing these results to other enterprises because of inconsistencies in methods of computation and inherent differences among companies and industries.

CONSTANT DOLLARS (ADJUSTMENTS FOR GENERAL INFLATION)

Constant dollar information presents historical values of selected financial data restated in average 1980 dollars. This restatement has been determined by applying the Consumer Price Index to financial data which reflects units of value other than average 1980 dollars.

Constant dollar revenue and dividends per share for the past five years also are restated in average 1980 dollars. Common stock market prices for the past five years reflect the year-end 1980 dollar values. 1980 constant dollar income shows the effect of restating inventories and depreciation expense in average 1980 dollars.

CURRENT COST (ADJUSTMENTS FOR CHANGES IN SPECIFIC PRICES)

Current cost information represents a restatement of specific assets used by an enterprise to current values at the balance sheet date (December 31, 1980) or at the date of use or sale. Restatement is determined for identical assets regardless of technologically improved alternatives and/or management's intent to replace. This approach is intended to provide information for assessing the impact of theoretical replacement of productive capacity on future income and cash flows. This information, however, does not reflect specific plans for future replacements.

Current cost restatement of income shows the effect on cost of goods sold and depreciation expense of valuing inventories and property, plant and equipment at current prices. Property, plant and equipment and related accumulated depreciation have been adjusted to reflect current cost in the following manner: land and mine development by a general inflation index (CPI), mineral resources by current market prices, buildings and improvements by a building index factor, floating equipment by vendor price quotations or estimates, machinery and other equipment by vendor price quotations or estimates for major components and Producer Price indices on all remaining items. Fixed assets in foreign locations are valued using local prices or indices to the extent available. Inventories have been adjusted as follows: materials and supplies by vendor prices and Producer Price indices, work-in-process and finished

goods by current standard costs of manufacture, extraction and processing, and resale items by vendor prices and Producer Price indices. Inventoried costs of contracts in progress are included at historical values as suggested by the FASB. Since contract billings are stated in similar dollars, conversion would not add to the information.

The FASB requires that statistical data relating to mineral resources assets be disclosed for 1980. Current Dravo mineral interests include shell, sand, gravel and limestone. Proven and probable mineral reserves at December 31 exceeded 500 million tons. During the year, about 18 million tons were mined. Average 1980 market price per ton was \$4 to \$6.

REVIEW OF THE INFORMATION

Dravo has maintained a relatively stable revenue position during the past five years in terms of 1980 constant dollars.

Income in 1980, adjusted for general inflation (constant dollars) and changes in specific prices (current cost) is below the reported pre-tax income of \$35.9 million. This is due principally to restated depreciation expense related to higher replacement values of property, plant and equipment. Income adjustments pertaining to inventories are comparatively low, reflecting the company's use of LIFO inventory valuation for manufacturing operations. Other operations use alternative inventory valuation methods. The liquidation of a portion of equipment inventory increased the current cost adjustment by approximately \$2 million.

This downward adjustment in income should be compared to the \$15.8 million purchasing power gain on net amounts owed. During periods of inflation, retained monetary assets decline in value since the dollar loses purchasing power. Conversely, dollars with less value will be used to satisfy monetary liability obligations such as current and long-term notes payable. Dravo, like most companies, has monetary liabilities in excess of monetary assets, resulting in a purchasing power gain.

In accordance with FASB guidelines, no adjustment has been made to income taxes. The result, as income decreases when adjusted to reflect constant dollars and current cost, is to increase the effective tax rate. In 1980, our effective tax rate of 40 per cent increased to 90 per cent for constant dollar restatement and 152 per cent for current cost restatement. While this distorts the adjusted income after taxes and earnings per share data, it illustrates the magnitude of the tax burden placed on capital-intensive enterprises by present tax laws. Creating greater public understanding and awareness of the need for tax reforms aimed at inducing capital investments is considered by management to be an important aspect of this information.

As shown in the five-year comparison, dividends have kept pace with general inflation. While 1980 dividends decreased 5.2 per cent from 1979 in terms of constant dollars, the market price per share of common stock increased 37.7 per cent in the same one-year period. Information shown per common share has been restated for the 3-for-2 stock split of record date February 4, 1981.

INCOME ADJUSTED FOR CHANGING PRICES
(In millions)

	As Reported In Primary Statements	Adjusted for General Inflation (Constant Dollar)	Adjusted for Changes in Specific Prices (Current Costs)
Year ended December 31, 1980			
Income before taxes	\$35.9	\$ 35.9	\$ 35.9
Adjustments to restate costs and expenses for changing prices:			
Inventories charged to cost of construction, products and services	—	(6.6)	(7.9)
Depreciation and amortization expenses related to costs of construction, production and services	—	(12.5)	(17.8)
Depreciation and amortization expenses related to selling, general and administrative expenses	—	(.9)	(.8)
Income before taxes, after adjustments	35.9	15.9	9.4
Provision for income taxes	14.3	14.3	14.3
Net income	\$21.6	\$ 1.6	\$ (4.9)

**FIVE-YEAR COMPARISON OF SELECTED FINANCIAL DATA
ADJUSTED FOR THE EFFECTS OF CHANGING PRICES**
(In millions, except per share)

	1980	1979	1978	1977	1976
Revenue:					
—as reported	\$1,113.9	\$ 992.3	\$ 959.0	\$ 946.0	\$ 811.9
— in 1980 constant dollars	1,113.9	1,125.3	1,203.9	1,278.5	1,168.1
Net income from continuing operations:					
—as reported	21.6	28.2			
— in constant dollars	1.6	12.7			
— in current costs	(4.9)	10.0			
Earnings per common share from continuing operations:					
—as reported	1.69	2.31			
— in constant dollars	.09	1.03			
— in current costs	(.43)	.80			
Net assets (equity) at year end:					
—as reported	245.7	232.0			
— in constant dollars	401.2	396.1			
— in current costs	486.5	443.2			
Gain from decline in purchasing power of net amount owed	15.8	16.1			
Increase in general price level of inventories and net property, plant and equipment over increase in specific prices	4.5	11.5			
Cash dividends paid per share:					
—as reported	.91	.85	.77	.70	.63
— in 1980 constant dollars	.91	.96	.96	.95	.91
Market price per share at year end:					
—as reported	31.75	20.62	18.75	18.62	15.25
— in 1980 constant dollars	31.75	23.05	23.76	25.71	22.49
Average Consumer Price Index	245.3	216.3	195.4	181.5	170.5

PRODUCTS AND SERVICES

International Headquarters
 One Oliver Plaza, Pittsburgh, Pa. 15222
 Telephone: 412 566-3000; Cable DRAVOCO
 Telex: 86-6125 DRAVO PGH

DRAVO ENGINEERS AND CONSTRUCTORS

Worldwide engineers, designers, constructors, project and construction managers

Industrial

Hydrocarbon processing

Synthetic fuels

Oil extraction from shales and sands

Chemicals

Waste treatment

Pulp and paper

Iron ore processing

Direct reduction

Coke and steelmaking

Nonferrous minerals and metals

Coal processing

Mine design, construction, operation

Power and Consulting

Power generation, including fossil fuel, nuclear, geothermal and cogeneration facilities

Power transmission

Rail transportation

Marine facilities

Environmental engineering

Facility operation and maintenance

General Offices: One Oliver Plaza, Pittsburgh, Pa. 15222
 Telephone: 412 566-3000

Operating Centers

Pittsburgh: One Oliver Plaza, Pittsburgh, Pa. 15222

Telephone: 412 566-3000; Telex: 86-6125 DRAVO PGH

Denver: Dravo Building, 1250 14th Street, Denver, Col. 80202

Telephone: 303 893-4500; Telex: 45-930 DRAVO CRP DVR

Atlanta: Paper Industry Engineers

2191 Northlake Parkway, Bldg. 11, Suite 29, Tucker, Ga. 30084

Telephone: 404 939-9002

Gibbs & Hill, Inc.

393 Seventh Avenue, New York, N.Y. 10001

Telephone: 212 760-4000; Cable GIBBSHILL NEW YORK

Telex: 127636 GIBBSHILL NYK

Dravo Utility Constructors, Inc.

Two Penn Plaza, New York, N.Y. 10121

Telephone: 212 760-4000; Telex: 710-581-6033

Dravo Van Houten, Inc.

One Penn Plaza, New York, N.Y. 10119

Telephone: 212 695-2244; Telex: 126390 VANENGER NYK

Operating Centers

Dallas: 5501 LBJ Freeway, Suite 1200, Dallas, Tex. 75240

Telephone: 214 934-6600; Telex: 794482

Omaha: 8420 W. Dodge Road, Omaha, Neb. 68114

Telephone: 402 391-0330; TWX: 910-622-0294

San Jose: 1754 Technology Drive, Suite 116, San Jose, Cal. 95110

Telephone: 408 280-7091; Telex: 171-647

International Overseas units of Dravo Engineers and Constructors are shown in the "International" section of this listing on pages 46 and 47.

MANUFACTURING GROUP

Manufacturers of equipment for marine transportation, bulk materials handling, heating, ventilating and air conditioning; Process equipment and specialized heavy machinery; Pipe fabricators; Grating manufacturers

General Offices: Neville Island, Pittsburgh, Pa. 15225

Telephone: 412 777-5000

Engineering Works Division

Towboats, barges and other marine equipment; Bulk materials handling equipment and systems; Specialized heavy machinery and equipment.

Neville Island, Pittsburgh, Pa. 15225

Telephone: 412 777-5000

Offices: Denver, New Orleans, St. Louis

Dravo Wellman Company

Unit train unloading systems for coal, ores and other materials; Bulk materials handling systems

113 St. Clair Avenue, Cleveland, Ohio 44114

Telephone: 216 621-9934; Telex: 810-421-8263 DRAVO WELL CLV

Dravo SteelShip Corporation

Workboats, small towboats, offshore vessels and patrol craft

Route 4, Box 76, Pine Bluff, Ark. 71602

Telephone: 501 536-0362

Government Relations Office
1225 19th Street NW, Washington, D.C. 20036
Telephone 202 785-1491

Dravo Lectro Quip

Systems for removing fats, oils and solids from liquids in industrial processes

Neville Island, Pittsburgh, Pa. 15225
Telephone: 412 777-5000

Fabricated Products Division

Dravo/Hastings industrial and commercial heating, ventilating and air conditioning equipment; Tru-Weld® fabricated steel grating, stair treads and handrail systems

410 Rouser Road, P.O. Box 9305, Pittsburgh, Pa. 15225
Telephone: 412 777-5000
Offices: Chicago, Houston, New York, Tulsa

Pipe Fabrication Division

Fabricated piping and pressure vessels for the power, chemical, refining and other industries

1115 Gilman Avenue, Marietta, Ohio 45750
Telephone: 614 373-7541; TWX: 810-486-2808
Offices: Charlotte, Chicago, Kansas City, New York, Philadelphia, Pittsburgh, San Francisco

NATURAL RESOURCES GROUP

Producers of aggregates, concrete, coal, Thiosorbic® lime and Calcilox® stabilizing agent

General Offices: One Oliver Plaza, Pittsburgh, Pa. 15222
Telephone: 412 566-3130

Aggregates Division

Sand and gravel; Ready-mixed concrete; Concrete block; Limestone fines

One Oliver Plaza, Pittsburgh, Pa. 15222
Telephone: 412 566-3545

Charleston Region

2101 Washington Street, E., Charleston, W. Va. 25311
Telephone: 304 345-6100

Cincinnati Region

5253 Wooster Road, Cincinnati, Ohio 45226
Telephone: 513 321-2700

Pittsburgh Region

Neville Island, Pittsburgh, Pa. 15225
Telephone: 412 777-5856

Dravo Coal Company

Low-sulfur coal

One Oliver Plaza, Pittsburgh, Pa. 15222
Telephone: 412 566-3000
Carbon County Coal Company, P.O. Box 830, Hanna, Wyo. 82327
Telephone: 307 325-9471

Dravo Lime Company

Thiosorbic® lime for stack gas SO₂ removal, metallurgical lime; Calcilox® sludge stabilizing agent and systems

650 Smithfield Street, Pittsburgh, Pa. 15222
Telephone: 412 566-4401

SOUTHERN INDUSTRIES CORPORATION

Producers of aggregates, construction materials, lime, poultry feed supplement and other materials

General Offices: 61 St. Joseph Street, P.O. Box 1685, Mobile, Ala. 36633
Telephone: 205 438-3531

Radcliff Materials, Inc.

Sand and gravel; Shell; Ready-mixed concrete, asphaltic concrete and concrete block; Poultry feed supplement; Industrial filler material

McDuffie Island, P.O. Box 2068, Mobile, Ala. 36652
Telephone: 205 432-2651

Round Rock Lime Company

Chemical lime

Highway 174, P.O. Box 38, Blum, Tex. 76627
Telephone: 817 874-5221

SI Lime Company

Chemical lime

McDuffie Island, P.O. Box 2947, Mobile, Ala. 36652
Telephone: 205 432-2145

SI Minerals, Inc.

Crushed slag

4035 S. Florida Avenue, P.O. Box 5108, Lakeland, Fla. 33803
Telephone: 813 646-5741

Southern Stone Company, Inc.

Crushed stone and slag; Sand and gravel; Agricultural lime

2111 Eighth Avenue, S., Birmingham, Ala. 35233
Telephone: 205 252-6104

OTHER SUBSIDIARIES

Dravo Mechling Corporation

Barge transportation on the U.S. inland waterways

General Offices: One Oliver Plaza, Pittsburgh, Pa. 15222
Telephone: 412 566-3900; TWX: 710-664-4457 DRAVOMEC PGH
Offices: Chicago, Houston, Joliet, New Orleans, St. Louis, Summit, N.J.

Dravo Equipment Company

Sale and rental of construction and mining equipment;
Sale of industrial equipment

General Offices: One Oliver Plaza, Pittsburgh, Pa. 15222
Telephone: 412 566-4955

Dravo Doyle

Route 19 North, P.O. Box 2881, Pittsburgh, Pa. 15230
Telephone: 412 322-4500

Dravo Marks

1500 Industrial Parkway, Brunswick, Ohio 44212
Telephone: 216 225-3133; TWX: 810-437-2371 DRAVOMARK BRSK

Tectonics Constructors, Inc.

Industrial contractors

Suite 1150, Century Building, 130 Seventh Street
Pittsburgh, Pa. 15222
Telephone: 412 566-4453

Livsey & Company, Inc.

4487 Park Drive, Suite E, Norcross, Ga. 30093
Telephone: 404 923-3950

Weyher Construction Company

P.O. Box 628, Salt Lake City, Utah 84110
Telephone: 801 521-7030

DRAVO INTERNATIONAL

Coordinators of international activities through regional offices

General Offices: One Oliver Plaza, Pittsburgh, Pa. 15222
Telephone: 412 566-3000

Europe and Africa

Via Amedie, 8, Milan 20123, Italy;
Telephone: (39-2) 860-453; Telex: 331839 DRAVCO I

Far East

Air Mail Distribution Center, Manila International Airport,
P.O. Box 7570, 3120-Philippines;
Telephone: (63-2) 59-91-23; Telex: 7420510 BRUCE PM

Middle East

P.O. Box 10365, Riyadh, Saudi Arabia;
Telephone: (966-1) 46-43569; Telex: 200436 DRAVO SJ

Latin America

Apartado 70612, Los Ruices, Caracas 107, Venezuela;
Telephone: (58-2) 283-7744; Telex: 21765 PLASBEN

INTERNATIONAL SUBSIDIARIES & AFFILIATES

Africa

Alrem (*Societe Algerienne de Realizations et D'Etudes Minieres*)
Engineering and construction of minerals mining and processing facilities

4/6 Boulevard Mohamed V., Algiers, Algeria;
Telephone: 63-79-52; Telex: 53006 DZ

Australia

Dravo Australia

All Dravo products and services

30 Atchison Street, St. Leonards, N.S.W. 2065, Australia;
Telephone: (61-2) 439-4666; Telex: 21797 DRAVO AA
Perth Operations: 240 St. Georges Terrace, Perth 6000,
W.A., Australia;
Telephone: (61-9) 322-1900; Telex: 92312 DRAVO AA

Canada

Dravo of Canada Limited

All Dravo products and services

4935 Kent Street, Niagara Falls, Ontario, Canada L2H 1J6;
Telephone: 416 356-8559; Telex: 061-5201 DRAVO MFG NFS
Mining and Construction Operations: General Delivery, Garson,
Ontario, Canada P0M 1V0
Telephone: 705 693-2701

Europe**Dravotec, S.p.A.**

Engineering and construction services; Manufacturing

Borghi e Baldo Ingg., S.p.A.

General consulting engineering services

Compagnia Elettrotecnica Italiana, S.p.A.

Electrical construction services; manufacturer of electrical components

Dravo Costruttori, S.p.A.

Engineering and construction services

F. C. de Weger Internationaal B.V.

Engineering and design services for marine facilities; Architectural services for offices, industrial facilities and airports

IWACO B.V. (International Water Supply Consultants)

Water supply and sanitary engineering; Hydrological and geohydrological investigations

Gibbs & Hill Espanola, S.A.

Electric power generation and transmission facilities

Via Lago di Nemi, 25, Milan 20142, Italy;
Telephone: (39-2) 810-242; Telex: 312545 CEIMIL I

Via Amedie, 15, Milan 20123, Italy;
Telephone: (39-2) 8579; Telex: 320033 BBMIL I

Via Lago di Nemi, 25, Milan 20142, Italy;
Telephone: (39-2) 810-241; Telex: 312545 CEIMIL I

Via Amedie, 8, Milan 20123, Italy;
Telephone: (39-2) 860-453; Telex: 331839 DRAVCO I

William Boothlaan 20, P.O. Box 705, Rotterdam 3002,
The Netherlands;
Telephone: (31-10) 136-872; Telex: 24261 WEGER NL

189 Schiekade, P.O. Box 183, Rotterdam 3001, The Netherlands;
Telephone: (31-10) 143-622; Telex: 24069 IWACO NL

Magallanes 3, Planta 9, Madrid 15, Spain;
Telephone: (34-1) 448-25-12; Telex: 22268 GHESA E

Far East**Filipinas Dravo Corporation**

Engineering and project management services

New Solid Building, 357 Buendia Avenue Ext.,
Makati Metro Manila, Philippines
Telephone: (63-2) 858227; Telex: 45510 CDCP PM

Dravo (Hong Kong) Ltd.

All Dravo products and services

c/o East Asiatic Company, 19th Floor, Connaught Centre,
Hong Kong
Telephone: (852-5) 266239; Telex: 73294 EACCO HX

GIBSIN Engineers, Ltd.

Electric power generation and transmission facilities

No. 9, Lane 3, Ming-Sheng W. Road, Taipei, Taiwan;
Telephone: (86-2) 531-4250; Telex: 785-26350

Dravo Pacific Inc.

All Dravo products and services

P.O. Box 302 KBY, Jakarta Selatan, Indonesia;
Telephone: 711780; Telex: 47126 INCAS JKT

P. T. Triweger

Architectural, civil and marine engineering

P.O. Box 361 JKT & 120 KBT, Jakarta Selatan, Indonesia;
Telephone: 712008; Telex: 47126 INCAS JKT

Chuchawal-de Weger Internationaal Ltd.

Architectural, civil and marine engineering

P.O. Box BKK 11-1357, Bangkok, Thailand
Telephone: (66-2) 2515222; Telex: 84125 CWD TH

Dravo-Okura Co., Ltd.

Bulk materials handling equipment and systems

3-6, Ginza Nichome, Chuo-Ku, Tokyo 104, Japan
Telephone: (81-3) 535-3064; Telex: J22306

Latin America**Dravo de Mexico, S.A. de C.V.**

Engineering, construction, project management and manufacturing services

Campos Eliseos No. 169—5o. piso, Mexico 5, D.F.
Telephone: (52-5) 250-45-22; Telex: 1776350 COPRME

Middle East**Dravo Arabia Limited**

Project and construction management, construction

P.O. Box 10365, Riyadh, Saudi Arabia;
Telephone: (966-1) 46-43569; Telex: 200436 DRAVO SJ
Al Khobar Operations: P.O. Box 522, Dhahran Airport,
Al Khobar, Saudi Arabia;
Telephone: (966-3) 86-48094; Telex: 670424 DAL SJ

DIRECTORS AND OFFICERS

DIRECTORS

Robert Dickey III
 Philip J. Berg
 Thomas F. Faught, Jr.
 Ralph B. Gilpatrick, Jr.
Vice Chairman
Mellon Bank N.A. (Banking)
 Richard R. Hough
Executive Vice President
American Telephone & Telegraph Company
(Communications)
 Ken L. Lott
Chairman of the Board
The Merchants National Bank of Mobile
(Banking)
 Allison R. Maxwell, Jr.
Director and Honorary Board Chairman
Wheeling-Pittsburgh Steel Corporation
(Integrated producer of steel and
steel products)
 Joseph A. Neubauer
Director and Retired President
PPG Industries, Inc.
(Manufacturer of glass, chemicals, resins
and fiberglass products)
 Richard B. Patton
Area Director
H. J. Heinz Company
(Food products and ingredients)
 L. Stanton Williams
Chairman of the Board and
Chief Executive Officer
PPG Industries, Inc.
(Manufacturer of glass, chemicals, resins
and fiberglass products)

OFFICERS

*Robert Dickey III
Chairman, President and
Chief Executive Officer
*Philip J. Berg
Executive Vice President, Operations
*Thomas F. Faught, Jr.
Executive Vice President, Finance and
Corporate Development
 James D. Copeland
Senior Vice President
Planning and Employee Relations
 Rodney S. Gould
Senior Vice President, Corporate Affairs
 James P. Kelly
Group Vice President, Natural Resources
 Charles A. Patten
Group Vice President, Manufacturing
 Dudley E. Dawson, Jr.
Vice President;
Chairman, Southern Industries Corporation
 James R. Sharpe
Vice President;
President, Dravo Engineers and Constructors
 E. P. Additon
Vice President;
Senior Vice President
Dravo Engineers and Constructors
 J. R. Byrnes
Vice President;
Executive Vice President
Dravo Engineers and Constructors
 Alexander Matiuk
Vice President;
President, Gibbs & Hill, Inc.
 Noel F. Boyd
Vice President;
Senior Vice President
Dravo Engineers and Constructors
 Willem H. Thorbecke
Vice President;
President, Dravo International
 Donald P. Courtsal
Vice President, General Manager
Engineering Works Division
 Charles R. Cox
Vice President, Aggregates

Gustav Schwab
Vice President, General Manager
Pipe Fabrication Division

Robert E. Gee
Vice President
New Technology and Planning
 Walter E. Hinrichs
Vice President, Corporate Development
 Frederick A. Joss
Vice President, Treasurer
 Robert E. Mertz
Vice President, General Counsel
and Secretary
 George J. Newhams
Vice President
 Joseph V. Newman
Vice President, Controller
 John D. Peters
Vice President, Purchasing and Traffic
 Richard G. Quick
Vice President, Government Relations

*Corporate Policy Committee

DRAVO CORPORATION

International Headquarters

Dravo Corporation
One Oliver Plaza
Pittsburgh, Pa. 15222
Telephone: 412 566-3000

Annual Meeting

The Annual Shareholders' Meeting of Dravo Corporation will be held on Friday, April 24, 1981, at the Hilton Hotel, Pittsburgh, Pennsylvania. Formal notice of the meeting and proxy material will be mailed to shareholders on or about March 20, 1981.

Listing of Common Stock

New York Stock Exchange (DRV)

Transfer Agents and Registrars

Morgan Guaranty Trust Company of New York, New York, N.Y.
Pittsburgh National Bank,
Pittsburgh, Pa.

Additional Reports

More detailed information on the company's business is available in its Form 10-K filed annually with the Securities and Exchange Commission. Shareholders desiring a copy of this report for the most recent fiscal year may obtain it by written request to Mr. R. E. Mertz, Secretary, at the company's General Offices.

Dividend Reinvestment

An Automatic Dividend Reinvestment Plan is available for the convenience of interested shareholders. Information may be obtained from the Shareholder Records Department at the company's General Offices.



DRAVO CORPORATION
One Oliver Plaza
Pittsburgh, Pa. 15222